

# TSD File Inventory Index

Date: February 9, 2007

Initial: CMH/mao

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Comments: \_\_\_\_\_



NNIFER M. GRANHOLM  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
LANSING



September 2, 2008

Mr. David L. Kruszka  
Plant Manager  
Double Eagle Steel Coating Company  
3000 Miller Road  
Dearborn, Michigan 48187

Dear Mr. Kruszka:

SUBJECT: Double Eagle Steel Coating Company (DESCC); MID 981 092 190

This letter is provided in response to your July 29, 2008, correspondence regarding the regulatory status of the proposed DESCSC Terminal Building Recycle Project, pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). As provided in your letter and discussed in the July 22, 2008, meeting with Department of Environmental Quality (DEQ) staff and as discussed during the DEQ August 22, 2008, visit to DESCSC, the DEQ understands that DESCSC intends to install two proprietary ultrafiltration units that will separately affect the recycling of DESCSC process alkaline cleaner and reclamation of oil from the alkaline cleaner and a separate oil impacted wastewater.

**Background**

Based on the aforementioned July 29, 2008, correspondence and subsequent meetings, the DEQ understands the alkaline cleaner recycling and oil reclamation project to entail the installation of two ultrafiltration units. One ultrafiltration unit will be installed to allow recycling of "315 brush machine solution" and "high-current density alkaline cleaning solution (HCD)". The DEQ understands, as well, that a second ultrafiltration unit will be installed to recover process oils from process wastewater within the DESCSC "entry basement" collection system. The DEQ understands the HCD system to clean rolled steel by removing protective oils applied by others. The DEQ understands, as well, that the entry basement collection system waste stream includes wastewater impacted with de minimis releases of on-site process surface coating oil and hydraulic oils from process equipment on site.

Currently, spent HCD is accumulated in the DESCSC Tank 12 for transport off site for beneficial use. Historically, the spent HCD had been transported off site as a D002, characteristic corrosive hazardous waste. The DEQ understands that currently the waste stream is being managed as a beneficial reuse material that is exempt from the definition of "waste" pursuant to Part 111, inasmuch as that material is directly reused by a third party without additional treatment or processing. The DEQ understands, as well, that the oil/water mixture generated within the entry basement collection system is currently collected in DESCSC Tanks 43 and 44 until transported off site for treatment as a liquid industrial waste (LIW).

The DEQ understands the proposed ultrafiltration units will be installed as part of the plant infrastructure, with both units occupying the same geographical footprint within the DESCSC plant. The DEQ understands that Tank 12 will be plumbed into the HCD reclamation system as a "dead end" holding tank. The DEQ understands that off-site shipments of HCD from Tank 12



will be discontinued until such time as process "downturns" or other plant disruptions require materials transferred to, or otherwise stored within, Tank 12 to be transported in bulk for off-site reclamation, reuse, or otherwise disposal. The DEQ understands further that HCD processed through the ultrafiltration unit will be returned to the process cleaning tank, with recovered coating oils being transferred to used oil holding Tanks 43 and 44. The DEQ understands the recovered oil will ultimately be processed by a third party oil reclamation facility as used oil, with segregated oil lean wastewater (e.g., wastewater without a sufficient used oil content) being transported off site under uniform hazardous waste manifest as a LIW.

The DEQ understands the DESCC entry basement collection system will be retrofitted with hard connections to the second ultrafiltration unit and that the entry basement waste stream is typically composed of 2 percent or less oil, with the remaining 98 percent of the waste stream being wastewater. The DEQ understands that the oil/water waste stream to be processed through the second ultrafiltration unit will result in a concentrated used oil waste stream that will be transferred to used oil accumulation Tanks 43 and 44 for off-site reclamation or otherwise off-site sale and a separate wastewater waste stream. The DEQ understands the wastewater discharge from the second ultrafiltration unit will be initially treated in the DESCC on-site waste water treatment plant (WWTP) for National Pollutant Discharge Elimination (NPDES) permitted discharge, or alternatively, sent off site as a LIW for further treatment or disposal, but that DESCC is looking into the potential for utilization of that ultra filtered wastewater within the DESCC plant, pursuant to DESCC identifying a plant process that is able to accept the chemical and physical properties of that wastewater

The DEQ understands that no DESCC process rinse waters are collected within the entry basement collection system, but that all process rinse waters are collected for NPDES pretreatment within the WWTP, separate from the oil/wastewater collected within the entry basement collection system.

Inasmuch as installation of the HCD ultrafiltration unit, in effect, removes DESCC Tank 12 from the Part 111 regulatory scheme, the DEQ understands secondary containment associated with Tank 12 will be maintained by DESCC pursuant to Part 111 regulatory requirements associated with the storage of hazardous waste, to include D002 characteristic caustic hazardous waste. Additionally, the DEQ understands that approval in principle of the installation of the HCD ultrafiltration unit by no means allows for the controlled or uncontrolled overflow of HCD and associated liquids from Tank 12 into its secondary containment structure for planned or unplanned subsequent removal to an off-site treatment facility, nor would such approval afford any relief to DESCC of the release reporting requirements and other response action requirements that may be associated with any such Tank 12 overflows. Any such overflows would fall under the Part 111 and Part 121, Liquid Industrial Wastes, of the NREPA, regulatory scheme, requiring, among other actions, appropriate release response, containment, record keeping, reporting, characterization, and off-site transport to appropriate treatment, storage, and disposal or to beneficial reuse.

Additionally, inasmuch as DESCC provided to the DEQ a Tank 12 Secondary Containment Dike Level Management corrective action procedure for Tank 12 overflows, a S-01-59-10 Holding Tank 12 and Containment Area EPN#LI042 document related to inspections and management of the Tank 12 containment area, and a document entitled Tank 12 Level Probe Check Out Procedure DESCO Repetitive Maintenance File #100 & #101, April 26, 2006, within a June 30, 2006, correspondence, and other associated DESCC standard operating procedures, to include a June 30, 2006, DESCC guidance memorandum to line operators, QA Lab, and shift supervisors within that correspondence, the DEQ understands that these and other Tank 12 and



secondary containment related procedures and/or subsequently modified procedures and guidances will be adhered to, inasmuch as these procedures comply with and/or afford compliance with Part 111, Part 121, and the Resource Conservation and Recovery Act of 1976.

The DESCC offered to the DEQ in a February 27, 2007, correspondence an "initial design proposal for future structural modification of..." Tank 12, related to the Title 40 of the Code of Federal Regulations, Part 265, Subpart J, requirements that might be assigned to Tank 12 as a hazardous waste tank. The DESCC provided within its June 30, 2006, correspondence to the DEQ a June 12, 2006, Tank 12 and secondary containment integrity audit report developed by a third party consultant; this report clarifying Tank 12 compliance with Subpart J requirements. The DEQ understands that modification to Tank 12, as these modifications may relate to the operation of Tank 12 as a component within the "closed-loop" system or otherwise as a stand alone hazardous waste or beneficial reuse tank, are not being scheduled.

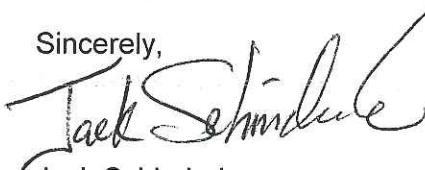
### Conclusion

The DEQ understands the proposed HCD reclamation system to be a closed-loop reclamation process under Part 111. As such, the HCD reclamation system is not regulated as a waste or a hazardous waste when reclaimed and returned to the original production process for reuse as long as, among other agreements: (1) Tank 12 is utilized only for temporary tank storage, (2) the reclamation does not involve combustion, and (3) the reclaimed material is not used to produce a fuel or products that are applied to the land. Tank 12 is not subject to Part 111, as it is part of the closed-loop system. If, however, HCD is not reclaimed within the closed-loop system or is released from Tank 12 or its associated piping, the status of the HCD and Tank 12 must be reevaluated to determine the appropriate level of regulation.

Inasmuch as the entry basement collection system stream includes an oil/water mixture that would not be classified as a hazardous waste, this waste stream is not regulated by Part 111. Used oil accumulated within Tanks 43 and 44, however, is subject to the used oil management standards of Part 111. Additionally, Section 12103(2) of Part 121 requires that a LIW generator who operates an on-site reclamation facility, treatment facility, or disposal facility shall keep records of all liquid waste produced and reclaimed, treated, or disposed of at his or her facility.

If you have any questions regarding this letter, please contact me at the number below.

Sincerely,



Jack Schinderle  
Hazardous Waste Section  
Waste and Hazardous Materials Division  
517-373-8410

cc: Mr. Duncan Campbell, U.S. Environmental Protection Agency, Region 5  
Mr. Lawrence AuBuchon, DEQ  
Mr. James Day, DEQ  
Ms. Carol Panagiotides, DEQ  
Ms. Kimberly Tyson, DEQ



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

JAN 30 2007

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

REPLY TO THE ATTENTION OF:

Tom Kevin  
Plant Manager  
Double Eagle Steel Coating Company  
3000 Miller Road  
Dearborn, MI 48120

DE-9J

Re: RCRA Compliance Evaluation Inspection  
Double Eagle Steel Coating Company  
EPA ID No.: MID 981 092 190

Dear Mr. Kevin:

On February 27, 2006, representatives of the United States Environmental Protection Agency (U.S. EPA) and Michigan Department of Environmental Quality (MDEQ) inspected Double Eagle Steel Coating Company (DESCC), located at 3000 Miller Road in Dearborn, Michigan. The purpose of the inspection was to evaluate DESCC's compliance with requirements of the Resource Conservation and Recovery Act (RCRA) and the Michigan Administrative Code (MAC) as they applied to DESCC's generation of hazardous waste.

In response to violations of Michigan Part 111 Administrative Rule R299.9306, identified during the inspection of DESCC, MDEQ issued enforcement letters on March 29, 2006, May 31, 2006, and September 15, 2006. DESCC responded to these enforcement letters on April 28, 2006, August 18, 2006, September 29, 2006, October 26, 2006, and November 14, 2006. In addition, DESCC submitted information directly to U.S. EPA on December 21, 2006, and January 17, 2007.

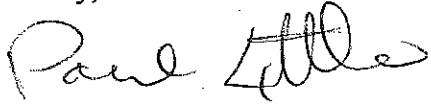
On January 8, 2007, MDEQ notified you that it had completed its review of all information submitted by DESCC and MDEQ determined that all violations it had identified during its February 27, 2006, and March 7, 2006, inspections had been corrected.

Based on information U.S. EPA received from you and your staff, information provided directly by Mr. Scott Dismukes, Esq. of US Steel and U.S. EPA's review of DESCC's records, our review of the inspection has not resulted in any additional violations to those cited in the Letters of Warning issued by MDEQ on March 29, May 31, and September 15, 2006.

This letter is to inform you that U.S. EPA has determined that no additional information needs to be provided by DESCC concerning information requests U.S. EPA has made during conference calls. However, this letter does not limit the applicability of the requirements evaluated, other RCRA regulations or regulations under other environmental statutes. U.S. EPA and MDEQ will continue to evaluate DESCC for compliance with these requirements in the future.

If you have any questions or concerns regarding this matter, please contact Duncan Campbell at 312/886-4555.

Sincerely,

A handwritten signature in cursive script, appearing to read "Paul Little".

Paul Little, Chief  
Enforcement and Compliance Assurance Branch  
Compliance Section 2

cc: John Craig, MDEQ, Waste & Hazardous Materials Division, Lansing  
Larry AuBuchon, MDEQ, Southeast Michigan District Office, Warren, Michigan  
James Day, MDEQ, Southeast Michigan District Office, Warren, Michigan



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 W. JACKSON BOULEVARD  
CHICAGO, IL 60604

COMPLIANCE EVALUATION INSPECTION REPORT

INSTALLATION NAME: Double Eagle Steel Coating Company

EPA ID No.: MID 981 092 190

LOCATION ADDRESS: 3000 Miller Road  
Dearborn, Michigan 48120

NAICS CODE: 332812 -- Metal Coating

DATE OF INSPECTION: February 27, 2006

U.S. EPA INSPECTOR: Duncan Campbell


MDEQ INSPECTOR: James Day

PREPARED BY:

  
Duncan Campbell  
Environmental Protection Specialist

AS amended to reflect  
recent information.  
01/19/2007  
Date  
RECEIVED 01/17/07

REVIEWED BY:

  
Paul Little, Chief  
Compliance Section 2

1-26-07  
Date

## **PURPOSE OF INSPECTION:**

On February 27, 2006, U.S. EPA led a Compliance Evaluation Inspection (CEI) at the Double Eagle Steel Coating Company (DESCC) located at 3000 Miller Road, Dearborn, Michigan. The purpose of the inspection was to determine the DESSC's compliance with the Resource, Conservation and Recovery Act (RCRA) and Michigan Administrative Code Part 111 Rule 299.9301 et seq. The Michigan Department of Environmental Quality (MDEQ) accompanied U.S. EPA and made determinations regarding DESSC's compliance with the Michigan Liquid Industrial Wastes requirements of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

## **INTRODUCTION:**

U.S. EPA representative Duncan Campbell and MDEQ representative Jim Day arrived at the installation at approximately 9:30am. Inspectors Campbell and Day introduced themselves to Mr. Chris McBee, who represented DESSC during the inspection. The inspectors presented their enforcement credentials to Mr. McBee. Inspector Campbell informed Mr. McBee as to the nature and scope of U.S. EPA's RCRA inspection. Prior to leaving the facility Inspector Campbell briefed Mr. Thomas Kevin, DESSC's plant manager, regarding U.S. EPA's observations and the procedures and likely follow-up to this EPA led inspection.

## **INSTALLATION DESCRIPTION:**

Mr. McBee provided Inspectors Campbell and Day with an overview of DESSC's operations. DESSC was started as a joint venture between U.S. Steel and Rouge Steel. The facility is located immediately across Miller Road from the former Rouge Steel plant. The Rouge Steel plant has been acquired by Severstal North America. Ford Motor's Dearborn Assembly is also across Miller Road from DESSC.

DESCC is advertised as the world's largest electro-galvanizer of carbon steel. DESSC sells zinc-alloy (typically 13-15% iron) coated roll coil to DaimlerChrysler, Ford and GM. The "big three" use the zinc-alloy coated steel because of its smooth, matte finish which provides exceptional surface quality to make exposed panels for autos - fenders, hoods, deck lids and doors - requiring a high finish after painting. Zinc-alloy coatings inhibit corrosion by creating a continuous, impervious metallic barrier that does not allow moisture to contact the steel surface. A galvanic condition is created during the electrolytic process when a thin coating of positively charged alloy - forming a cathode - is plated over the negatively charged carbon steel. In this way the zinc-alloy becomes sacrificial being the first to corrode and preserving the carbon steel. The zinc-alloy surface is also more resistant to manufacturing damage during stamping and handling of the panels.

Mr. McBee explained that there are two primary functions at DESSC: cleaning/prep and zinc/alloy plating. Mr. McBee escorted the two inspectors to the north end of the Terminal Building. DESSC performs cleaning and preparation of the rolled carbon steel coils within the

Terminal Building. Rolled carbon steel coils enter the Terminal Building from the north end and are placed on a "pay-off reel." Coils must be cleaned prior to being coated with zinc-alloy coating. DESCC uses a mixture of sodium hydroxide [NaOH] (15% concentration) and a surfactant as a cleaner. This caustic mixture is applied to the steel coil in a High Current Density [HCD] Electrolytic Cleaning Line. The HCD line re-circulates the mixture into a 10,000 gallon "solution sump." Oil removed from the coil steel surface flows to the "solution sump." Over time, the oil rises to the top of the "solution sump" where it can be removed from the mixture. The excess volume from the solution sump and HCD is routed to Tank #12, located in the North End Tank Farm east of the terminal building.

On March 7, 2006, Mr. Swientoniowski, Site Manager, Houghton International, provided James Day, MDEQ, with a sketch of how the caustic cleaners are re-circulated within the process. DESCC uses two different cleaners Q613 and Q618. The nomenclature refers to the primary component in each of these cleaners. Once these cleaners have been used to clean the metal surface, they are directed to a centrifuge and then to an oil/water separator. The oil is removed and conveyed to Tanks 43 and 44 and managed as "Used Oil."

DESCC hires Vac-All Services [MID 985 633 015] to remove oil from the "solution sump." DESCC terms this waste stream "skimmed oil." DESCC personnel told the inspectors that this wastestream is managed as a hazardous waste once it has been removed from the "solution sump." This wastestream is also called "Cleaner Tank Skim." The "skimmed oil" is vacuumed directly into a Vac-All tanker trailer which immediately transports it to EQ Detroit [MID 980 001 566], therefore, by-passing on-site management in either a hazardous waste storage tank or containers. DESCC provided the inspectors with a copy of the hazardous waste characterization for the "skimmed oil."

DESCC personnel also told the inspectors that the caustic cleaner in the HCD is completely emptied once every three months. This spent caustic cleaner is also managed as a hazardous waste and is currently being sent off-site to EQ Detroit.

DESCC also has a 20,000 gallon tank [Tank 12] located outside and to the north of the Terminal Building. Tank 12 is positioned within a secondary containment structure made of concrete. Tank 12 is used to store surplus materials which have been removed from the HCD line. Mr. McBee informed the inspectors that the contents of Tank 12 are being sent off-site to Dynecol [MID 074 259 565.]. Mr. McBee stated that Dynecol uses these contents to adjust pH and therefore the material is exempt from RCRA for its beneficial "reuse. DESCC terms this surplus material "Caustic Downturn." The term "caustic downturn" applies to both the location of the valve that the material flows through and the material itself.

Mr. McBee then escorted the inspectors to the Chemical Building where Mr. Bob Zarb, of DESCC, explained the sequence to the zinc-alloy electro galvanizing processes. DESCC has one set of plating baths to apply the zinc and the alloy coatings. These baths alternately hold zinc and alloy plating solutions. Both solutions are free of cyanide. First, rolled coil carbon steel is introduced to the zinc plating and then later to alloy plating solution. The application is performed in a cold, electrolytic bath, as opposed to a molten bath. Alloy is applied to improve the corrosion protection which extends the life of service and enhances the esthetic properties.



Zinc alloy electro-galvanizing also improves the formability of the substrate. Mr. Zarb explained that typically, the process requires periodic washing of the individual plating cells following the application of the alloy coating. He also explained that sometimes waste is generated as a result of a leaking or ruptured boot or from an overflowing cell.

Mr. Zarb explained that there are two re-circulating tanks located in the basement of the Chemical Building." These two tanks hold plating materials that are re-circulated back into the plating process.

As a result of washing the cells the added water dilutes the pH of the acid. The change in the solubility of the plating bath results in the formation of a precipitate. This precipitate is washed out of the cell and ends up being flushed down to four waste acid sumps. The four sumps cascade into each other. Effluent from the fourth acid sump is conveyed to the on-site wastewater treatment facility. The solids [precipitate] that collect in these sumps have to be periodically removed. Historically, DESCSC has managed these solids as hazardous waste as an exercise in caution. On March 12, 2006, DESCSC explained to EPA in a conference call, that trace amounts of chromium come from the Hastelloy Bands (conductor rolls) and not from the plating solution itself. U.S. EPA confirmed this when it reviewed the MSDS sheets for the alloy plating solution. DESCSC further explained that electrical current passes through metallic strips and over time, there is some degradation of the stainless steel. As a result of this degradation in the stainless steel, trace amounts of chromium is released. As explained above, initially the chromium is in solution and commingles with waste acid which is continually bled off the plating tanks. As a result of washing the cell [dilution], the pH of the waste acid rises. The change in the pH changes the chromium to an oxide which precipitates out of solution. DESCSC provided U.S. EPA with additional information in a letter from Tom Kevin dated December 21, 2006.

A side-stream is diverted from the plating process. This side-stream results in a solid material that is directed through a filter press. The filter press is located near Overhead Door #10. DESCSC manages these solids as a Liquid Industrial Waste and at the time of the inspection was sending them off-site for stabilization to EQ Detroit [MID 980 001 566]. DESCSC has provided the inspectors with analytical test results supporting its determination that this material is not hazardous waste.

#### **VISUAL SITE INSPECTION:**

The visual site inspection of the Double Eagle began at approximately 11:00am. The inspectors were escorted to two production departments: cleaning/stripping and plating.

- 1) The inspectors observed the cleaning and stripping operations in the Terminal building.
- 2) The inspectors also observed the electro-galvanizing operations in the Chemical Building.

**RECORDS REVIEW:**

The inspectors requested that Double Eagle provide them with copies of their training records and contingency plan. These records were found to be compliant with the R 299.9300 et seq. requirements. The inspectors also requested that Double Eagle provide them with information from their hazardous waste manifests and corresponding information regarding the waste characterizations that had been conducted on specific waste streams at the facility. Subsequent the February 27, 2006, inspection, MDEQ issued Letters of Warning on March 29, 2006, May 31, 2006 and September 15, 2006. MDEQ requested information concerning the liquid industrial waste generated at Door #10 and information concerning Dynecol's use of the contents from Tank #12. DESCC provided responses to MDEQ's request for information on April 28, 2006, August 18, 2006, September 29, 2006, and October 26, 2006. DESCC also provided U.S. EPA with additional information on December 21, 2006, and January 17, 2007.

**CLOSING CONFERENCE:**

Inspector Campbell conducted a closing conference with Mr. Thomas Kevin, Plant Manager, and his staff. Inspector Campbell stated his observation of liquid substance within the secondary containment surrounding Tank 12. Inspector Campbell also requested a certification signed by an independent, qualified, registered professional engineer certifying that Tank 12 meeting the standards established in either 40 C.F.R §§ 265.191 or 265.192.

Inspector Day of MDEQ also expressed concerns, to Mr. Kevin, regarding the materials observed within Tank 12's secondary containment that had been shipped off-site as Michigan Liquid Industrial Waste and subject to the Part 121 regulations found in Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

**ATTACHMENT:**

MDEQ Large Quantity Generator Inspection Form





# MICHIGAN GENERATOR INSPECTION FORM

**Double Eagle Steel Coating Company**

**MID 981 092 190**

**Inspection date 02/27/2006**

HAZARDOUS AND LIQUID INDUSTRIAL WASTE #	SOURCE
Downturn Caustic	High Current Density Electrolytic Cleaning Line (HCD) - spent caustic, surfactant and oil
Alloy Chrome sludge	Precipitate removed from the acid sump in the basement of the Chemical Building.

## WASTE DETERMINATION (Rule 302: 40 CFR 262.11)

		YES	NO	NI	N/A
1. Determined if waste streams are hazardous waste? (Rule 302: 40 CFR 262.11)	GGR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
a) Copy of waste evaluation on-site 3 years? (Rule 307(1): 40 CFR 262.40(c))	GGR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
b) Re-evaluated waste when changes in materials or process? (Rule 302(3))	GGR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A

## IDENTIFICATION NUMBER (Rule 303: 40 CFR 262.12)

2. Has the generator obtained an identification number? (Rule 303: 40 CFR 262.12)	GGR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
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## MANIFEST REQUIREMENTS (Rule 304: 40 CFR 262.20)

3. Copies of the manifest readily available for review & inspection (matched)? (Section 11138(1)(f))	GMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
4. Manifests kept for the past 3 years? (Rule 307(3): 40 CFR 262.40(a))	GMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
5. Manifests, contain the following? (Rule 304(1)(a): 40 CFR 262.20(a))					
a) Manifest document number. (Rule 304(2)(a): 40 CFR 262.20(a))	GMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
b) Generator's name, address, phone & ID # (Rule 304(2)(b): 40 CFR 262.20(a))	GMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
c) Name & ID # of the transporter. (Rule 304(2)(c): 40 CFR 262.20(a))	GMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
d) Name, address & ID # of TSDF. (Rule 304(2)(d): 40 CFR 262.20(b)&(c))	GMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
e) DOT description of waste(s). (Rule 304(2)(e): 40 CFR 262.20(a))	GMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
f) Quantity of waste, & type. (Rule 304(2)(f): 40 CFR 262.20(a))	GMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
g) Hazardous waste number of the wastes. (Rule 304(2)(g): 40 CFR 262.20(a))	GMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
h) Generator signature, initial transporter & date of acceptance? (Rule 304(4)(a)&(b): 40 CFR 262.23(a)(1)&(2))	GMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
Submitted copy of manifests to director no later than 10 days after month shipment was made? (Rule 304(4)(d))	GMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
7. Is the transporter used properly licensed under Act 451, Part 111? (Rule 304(1)(c))	GMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
8. Using manifest that has expired? (Rule 304(2): 40 CFR 262.20(a))	GMR				NO

		YES	NO	NI	N/A
9. Reportable exceptions. (Rule 308(3): 40 CFR 262.42)					
a) Number of manifests generator <u>HASN'T</u> receive signed copy from TSD w/in 35 days.	GRR	None			
b) Manifests generator <u>HASN'T</u> submitted exception reports to RA & DEQ after 45 days.	GRR	Not Applicable			
10. Facility have written program to reduce volume/toxicity/recycle wastes? (Rule 304(2)(i):40 CFR 262.20(a))	GMR	Not inspected			

OR

11. Facility discuss program in place to reduce volume/toxicity/recycle of wastes? (Rule 304(2)(i): 40 CFR 262.20(a))	GMR	Not inspected
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**WASTE ANALYSIS AND RECORDKEEPING (40 CFR 268.7)**

12. Did the generator determine if the waste is restricted from land disposal? (40 CFR 268.7(a))		
a) All listed wastes?	GLB	Not Applicable
b) All characteristic wastes?	GLB	[X] __ NI N/A
13. If restricted waste exceeds treatment standards or prohibitions did notice go with first shipment? (40 CFR 268.7(a)(1))	GLB	[X] __ NI N/A

OR

14. If restricted waste does not exceed treatment standards or prohibitions did a notice and certification statement go with each shipment? (40 CFR 268.7(a)(2))	GLB	Not Applicable
--	-----	----------------

OR

15. If waste has exemption from prohibition on the type of land disposal method utilized for the waste, did a notice go with each shipment? (40 CFR 268.7(a)(3))	GLB	Not Applicable
--	-----	----------------

OR

16. If facility choose alternative treatment standard for lab pack that contains none of the waste in appendix IV, did a notice & certification go w/ each shipment? (40 CFR 268.7(a)(8))	GLB	Not Applicable
17. Did the notice include: (40 CFR 268.7(a)(1)(I-v) or 268.7(a)(2)(I)(A-D) or 268.7(a)(3)(I-iv)		
a) EPA hazardous waste #?	GLB	[X] __ NI N/A
b) If wastewater or non-wastewater as defined in 268.2(d & f)?	GLB	[X] __ NI N/A
c) Subcategory of the waste (such as D003 reactive cyanide) if applicable?	GLB	Not Applicable
d) Manifest number associated with the shipment?	GLB	[X] __ NI N/A
e) Waste analysis data, where available?	GLB	[X] __ NI N/A
f) Waste constituents that the treater will monitor, if monitoring will not include all regulated constituents, for F001 - F005, F039, D001, D002, D012-D043? (treatment standards for hazardous waste in table in 268.40 for the waste code under regulated constituents)	GLB	Not Applicable

UNLESS

g) Did TSD claim they are going to monitor for ALL regulated constituents in the waste <u>in lieu of</u> the generator indicating same in the notice? (40 CFR 268.7(a)(1)(ii))	GLB	[ ] X NI N/A
h) Will the TSD treat for underlying hazardous waste constituents that are reasonably expected to be present at the generation point above UTS standards for D001 & D002? (40 CFR 268 Subpart D & 268.48)	GLB	[X] __ NI N/A

YES NO NI N/A

18. Other than notices for waste exceeding treatment standards, did notices include:		
a) If the notice is for shipments that meet the standards do the notice include the certification? GLB	Not Applicable	
b) If the notice is for shipments under prohibitions - does the notice include a statement that the waste isn't prohibited from land disposal & date the waste is subject to prohibition? GLB	Not Applicable	
19. Generator retains on-site records to support determination from knowledge or results from tests? (40 CFR 268.7(a)(5)) GLB	[X] ___ NI N/A	
20. If the restricted waste is excluded from being a hazardous waste or solid waste did the generator place an on-time notice stating same in the facility file? (40 CFR 268.7(a)(6)) GLB	Not Inspected	
21. All notices/certifications/demonstrations/other documents retained for 3 years on-site? (40 CFR 268.7(a)(7)) GLB	[X] ___ NI N/A	

NOTE: This requirement (268.7(a)(7)) applies to solid waste even when the hazardous waste characteristic is removed prior to disposal or when the waste is excluded from the definition of hazardous waste or solid waste.

### DILUTION PROHIBITED AS SUBSTITUTE FOR TREATMENT (40 CFR 268.3)

22. Generator dilute hazardous waste or treatment residue of a hazardous waste to avoid prohibition? (40 CFR 268.3(a)) GLB	___ [X] ___ NI N/A
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### TREATMENT STANDARDS (40 CFR 268.40)

23. If wastes exceeding treatment standards are mixed, was the most stringent standards selected? (40 CFR 268.40(c)) GLB	Not Applicable
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### BIENNIAL REPORT (Rule 308: 40 CFR 262.41)

24. Generator submitted its 2005 biennial report? (Rule 308(1): 40 CFR 262.41) GRR	[X] ___ NI N/A
25. Were copies of the report retained at least 3 years? (Rule 307(4): 40 CFR 262.40(b)) GRR	[X] ___ NI N/A

### PRE-TRANSPORTER REQUIREMENTS (Rule 305: 40 CFR 262.30)

26. Waste packaged according to DOT regulations (required before shipping waste off-site)? (Rule 305(1)(a): 40 CFR 262.30)) GPT	Not Applicable
27. Are waste packages marked & labeled according to DOT concerning hazardous materials (required before shipping waste off-site)? (Rule 305(1)(b)(c): 40 CFR 262.32(a)) GPT	Not Applicable
28. On containers 110 gallons or less, is there a warning, generator's name, address, manifest document # & waste code; 49 CFR 172.304? (Rule 305(1)(d): 40 CFR 262.32(b)) GPT	Not Applicable
29. If required, are placards available to the transporter? (Rule 305(1)(e): 40 CFR 262.33) GPT	[X] ___ NI N/A

### ACCUMULATION TIME (Rule 306: 40 CFR 262.34)

30. If hazardous waste accumulated in containers: (If no, skip to #35)	
a) Containers have accumulation date & visible? (Rule 306(1)(b): 40 CFR 262.34(a)(2)) GPT	Not Applicable
b) Container has words "Hazardous Waste"? (Rule 306(1)(c): 40 CFR 262.34(a)(3)) GPT	Not Applicable
c) Is each container clearly marked with the hazardous waste number? (Rule 306(1)(b)) GPT	Not Applicable
d) Has more than 90 days elapsed since date marked? (Rule 306(1)) GPT	Not Applicable

### UNLESS

e) The generator applied for & received an extension to accumulate longer? (Rule 306(3): 40 CFR 262.34(b)) GPT	Not Applicable
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		YES	NO	NI	N/A
f) Are containers in good condition? (265.171)	GMC	<b>Not Applicable</b>			
g) Are containers compatible with waste in them (265.172)	GMC	<b>Not Applicable</b>			
h) Are containers stored closed? (265.173(a))	GMC	<b>Not Applicable</b>			
i) Containers handled or stored in a way which may rupture it or cause leaks? (265.173(b))	GMC	<b>Not Applicable</b>			
j) Ignitable & reactive wastes stored 15 meters (50 feet) from property line? (265.176)	GMC	<b>Not Applicable</b>			
k) Are containers inspected weekly for leaks and defects? (265.174)	GMC	<b>Not Applicable</b>			
l) Did the generator document the inspections in 30(k)? (Rule 306(1)(a)(I))	GMC	<b>Not Applicable</b>			
m) Inspection documents maintained on-site 3 years? (Rule 306(1)(a)(I))	GMC	<b>Not Applicable</b>			
n) Are incompatible wastes stored in separate containers? (265.177(a))	GMC	<b>Not Applicable</b>			
o) Hazardous wastes put in unwashed containers that previously held incompatible waste. (265.177(b))	GMC	<b>Not Applicable</b>			
p) Incompatible waste separated/protected from each other by physical barriers or sufficient distance? (265.177(c))1	GMC	<b>Not Applicable</b>			
<b>31. If hazardous waste is being accumulated at the point of generation:</b>					
a) Container(s) <55 gal or 1 qt acutely/severely toxic? (Rule 306(2):40 CFR 262.34(c)(1))	GMC	<b>Not Applicable</b>			
b) Container(s) under operator control & near the point of generation? (Rule 306(2): 40 CFR 262.34(c)(1))	GMC	<b>Not Applicable</b>			
c) Container(s) have words "Hazardous Waste"? (Rule 306(2): 40 CFR 262.34(c)(1)(ii))	GMC	<b>Not Applicable</b>			
d) Are the container(s) marked with the hazardous waste number? (Rule 306(2))	GMC	<b>Not Applicable</b>			
e) Are container(s) in good condition? (265.171)	GMC	<b>Not Applicable</b>			
f) Are container(s) compatible with waste in them? (265.172)	GMC	<b>Not Applicable</b>			
g) Container(s) closed when not in use & managed to prevent leaks? (265.173(a))	GMC	<b>Not Applicable</b>			
<b>32. If generator exceeded 55 gallons, w/in 3 days did generator, w/respect to that amount of excess waste: (Rule 306(2): 40 CFR 262.34(c)(2))</b>					
a) Mark the container with the date the excess amount began accumulating?	GMC	<b>Not Applicable</b>			
b) Move to an area with secondary containment?	GMC	<b>Not Applicable</b>			
<b>33. If accumulating free liquids does the hazardous waste container storage area include:</b>					
a) Impervious base free of cracks? (264.175(b)(1))	GMC	<b>Not Applicable</b>			
b) Sloped or otherwise designed to elevate/protect containers from contact with liquids? (264.175(b)(2))	GMC	<b>Not Applicable</b>			
c) Hold 10% of volume of containers or volume of the largest container, whichever is greater? (264.175(b)(3))	GMC	<b>Not Applicable</b>			
d) Run-on prevented unless sufficient capacity? (264.175(b)(4))	GMC	<b>Not Applicable</b>			
e) Accumulated liquids removed in a timely manner to prevent overflow? (264.175(b)(5))	GMC	<b>Not Applicable</b>			

34. If accumulating solids of hazardous waste in containers: is accumulation area sloped or otherwise designed? Or, are containers elevated or otherwise protected from contact with liquids? (264.175(c))		Not Applicable
35. Is hazardous waste accumulated in other than tanks or containers? Or, is hazardous waste generated but not accumulated, i.e.: process tank? Explain any yes answer.		<input checked="" type="checkbox"/> NI N/A
36. Containerized waste area protected from weather, fire, physical damage & vandals? (Rule 306(1)(e))	GMC	Not Applicable
37. Are Containers of hazardous waste accumulated in such a way so that no hazardous waste or hazardous waste constituent can escape by gravity into soil, directly or indirectly, into surface, groundwaters, drains or sewers? (Rule 306(1)(f))	GMC	Not Applicable
38. Is hazardous waste accumulated in tanks? If so, complete Tank System inspection form.		<input checked="" type="checkbox"/> NI N/A
39. Is hazardous waste placed on drip pads? If so, complete Wood Preserving inspection form.		<input checked="" type="checkbox"/> NI N/A

### PERSONNEL TRAINING (265.16)

40. Do personnel training records contain the following:		
a) Job title? (265.16(d)(1))	GPT	<input checked="" type="checkbox"/> NI N/A
b) Job descriptions? (265.16(d)(2))	GPT	<input checked="" type="checkbox"/> NI N/A
c) Name of employee filling each job? (265.16(d)(1))	GPT	<input checked="" type="checkbox"/> NI N/A
d) Description of type & amount of both introductory & continued training? 265.16(d)(3))	GPT	<input checked="" type="checkbox"/> NI N/A
e) Training designed so facility personnel can respond to emergencies? (265.16(a)(3))	GPT	<input checked="" type="checkbox"/> NI N/A
f) Records of training? (265.16(d)(4))	GPT	<input checked="" type="checkbox"/> NI N/A
g) Do new personnel receive required training within 6 months? (265.16(b))	GPT	<input checked="" type="checkbox"/> NI N/A
h) Do training records show personnel have taken part in annual training? (265.16(c))	GPT	<input checked="" type="checkbox"/> NI N/A
i) Training by person trained in haz. waste management procedures? (265.16(a)(2))	GPT	<input checked="" type="checkbox"/> NI N/A

### PREPAREDNESS AND PREVENTION (265.30-265.37)

41. Facility maintained or operated to minimize the possibility of a release of hazardous waste or hazardous waste constituent which could threaten human health/environment? (265.31)	GPT	co. said <input checked="" type="checkbox"/> observed <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> NI N/A
42. If required, does this facility have the following equipment:		
a) Internal communications or alarm systems? (265.32(a))	GPT	<input checked="" type="checkbox"/> NI N/A
b) Telephone or 2-way radios at the scene of operations? (265.32(b))	GPT	<input checked="" type="checkbox"/> NI N/A
c) Portable fire extinguishers, fire control, spill control equipment and decontamination equipment? (265.32(c))	GPT	<input checked="" type="checkbox"/> NI N/A
d) Adequate volume of water and/or foam available for fire control? (265.32(d))	GPT	<input checked="" type="checkbox"/> NI N/A
43. Testing and Maintenance of Emergency Equipment:		
a) Owner/operator test & maintain emergency equipment to assure operation? (265.33)	GPT	<input checked="" type="checkbox"/> NI N/A
b) Has owner/operator provided immediate access to internal alarms? (265.34(a&b))		
i) When hazardous waste is being poured, mixed, etc.	GPT	<input checked="" type="checkbox"/> NI N/A
ii) One employee on the premises while facility is operating.	GPT	<input checked="" type="checkbox"/> NI N/A

c) Aisle space for unobstructed movement of personnel/emergency equipment? (265.35)	GPT	Not Applicable
44. Has the facility made arrangements with local authorities? (265.37(a)&(b))	GPT	[X] ___ NI N/A

### CONTINGENCY PLAN AND EMERGENCY PROCEDURES (265.50-265.56)

45. Plan implemented whenever release could threaten human health or the environment? (265.51(b))	GPT	[X] ___ NI N/A
46. Does the contingency plan contain the following information:		
a) Actions personnel must take responding to unplanned release of hazardous waste? (265.52(a & b))	GPT	[X] ___ NI N/A
b) Describe arrangements or attempts w/ local police, fire, hospitals, contractors, state & local emergency responders for emergency services; (265.52(c)) & (265.37(a)&(b))?	GPT	[X] ___ NI N/A
c) Name, addresses & phone (office & home) of emergency coordinator? (265.52(d))	GPT	[X] ___ NI N/A
d) List emergency equipment at the facility, including location, physical description & capabilities? (265.52(e))	GPT	[X] ___ NI N/A
e) Evacuation plan for personnel w/ signal(s), evacuation routes & alternate evacuation routes. (265.52(f))	GPT	[X] ___ NI N/A
47. Emergency Coordinator and Emergency Procedures:		
a) Coordinator familiar with site operation & emergency procedures? (265.55)	GPT	[X] ___ NI N/A
b) Emergency coordinators have authority to carry out the contingency plan? (265.55)	GPT	[X] ___ NI N/A
c) If emergency occurred, did coordinator follow emergency procedures? (265.56)	GPT	[X] ___ NI N/A
d) Other release of hazardous waste/haz. waste constituents, could threaten human health or environment or generator has knowledge spill reached surface or ground water, did generator notify MDEQ? (Rule 306(1)(d))	GPT	[X] ___ NI N/A
48. Contingency plan Amendments and Copies:		
a) Amended if changes to regulations/emergency coordinators/emergency equipment? (265.54)	GPT	[X] ___ NI N/A
b) Copies of plan on site and sent to local emergency organizations? (265.53)	GPT	[X] ___ NI N/A

### INTERNATIONAL SHIPMENTS (Rule 309 & 310: 40 CFR 262.50-262.60)

49. Has the facility imported or exported hazardous waste?	GOR	Not Applicable
a) Exporting, has the generator:	GOR	Not Applicable
i) Notified the Administrator in writing? (262.52(a))	GOR	Not Applicable
ii) Receiving country consented to accept waste. (262.52(b))	GOR	Not Applicable
iii) Has copy of EPA Acknowledgment of Consent. (262.52(c))	GOR	Not Applicable
iv) Compiled with manifest requirements Rule in 309(2)(a-i).	GOR	Not Applicable
v) If required, was an exception report filled. (309(3)(a-c))	GOR	Not Applicable

### ACCUMULATION AREA CLOSURE (265.111 & 265.114)

50. The accumulation area must be closed in a manner that: (265.111 & 265.114)		
a) Minimizes need for further maintenance.	GMC	Not Applicable
b) Controls/minimizes/eliminates, to protect human health & environment, the escape of haz. waste or haz. waste constituents, leachate, run-off to ground/surface waters and air.	GMC	Not Applicable

c) All contaminated equipment, structures, and soil properly disposed of.

GMC

Not Applicable

Footnotes:

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

U.S. EPA  
 77 W. JACKSON BLVD, DE-9J  
 CHICAGO, ILLINOIS 60604  
 ATTN: DUNCAN CAMPBELL

**POSTAGE & FEES**

Postage	\$ 63
Certified Fee	2.40
Return Receipt Fee (Endorsement Required)	1.85
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>4.88</b>

**Postmark Here**  
 CHICAGO IL 30 JAN 2007

**Delivery Address**  
 Tom Kevin, Plant Manager  
 Double Eagle Steel Coating Co.  
 3000 Miller Road  
 Dearborn, MI 48120

**Service Type**  
☐ Certified Mail  
☒ Registered  
☐ Insured Mail  
☐ Restricted Delivery? (Extra Fee)  
☐ Express Mail  
☒ Return Receipt for Merchandise  
☐ C.O.D.  
☐ Yes

**Signature**  
 [Signature]

**Date of Delivery**  
 2/1/07

**Delivery address different from item 1?**  
☐ Yes  
☒ No

**PS Form 3800, June 2003**

**102595-01-M-1424**



## Waste, Pesticides and Toxics Division

Type of Document: ☐ Notice of Violation and Inspection Report/Checklist  
☒ No Violation Letter and Inspection Report/Checklist  
☐ Letter of Acknowledgment  
☐ Information Request  
☐ Pre-Filing and Opportunity to Confer  
☐ State Notification of Enforcement Action  
☐ Return to Compliance

Facility Name:

Double Eagle Steel Casting Company

Facility Location:

3000 Miller Road

City:

Dearborn

State:

MI

48120

U.S. EPA ID#

MID 981 092 190

Assigned Staff

Duncan (approval)

Phone:

6-4555

Name	Signature	Date
Author	[Signature]	01/26/2007
Regional Counsel		
Section Chief	[Signature]	1-26-07
Branch Chief		

### Directions/Request for Clerical Support:

After the Section Chief/Branch Chief signs this sheet and original letter:

1. Date stamp the cover letter;
2. Make four copies of the contents of this folder:
  - One copy for the assigned staff;
  - One copy for the section file;
  - One copy for the branch file; and
  - One copy for the official file.
3. Make any additional copies for cc's or bcc's.
4. Mail the original certified mail and distribute office copies and cc's and bcc's.  
Once the certified mail receipt is returned:
5. File the certified mail receipt (green card), with this sign-off sheet and the official file copy, and take to 7<sup>th</sup> floor RCRA file room;
6. E-mail staff the date that the letter was received by facility.





3000 Miller Road  
Dearborn, Michigan 48120  
Telephone (313) 203-9800

January 17, 2007

Mr. Duncan Campbell  
U.S. EPA REGION 5 (Mail Code: DE-9J)  
77 West Jackson Boulevard  
Chicago, IL 60604-3507

**Re: Double Eagle Steel Coating Company**

Dear Mr. Campbell:

I am writing to respond to the additional questions that you have posed regarding materials in DESCC's chemical building basement. Specifically, during your visits to our facility last year, you have indicated that you observed some red colored material on the floor of the chemical building basement in the vicinity of the sumps. You have inquired about this material, and whether it could be classified as hazardous waste. You have also inquired about the relationship between the chemical building floor, the sumps and the wastewater treatment facility, and how material is conveyed from the floor to the sumps, and then to the wastewater treatment facility.

The red material you observed was sampled and tested on February 28, 2006, the day after your initial visit to DESCC. The material was determined to be non-hazardous. A copy of the sampling results is enclosed.

You had asked whether the material is conveyed via a trough or trench to the sumps. The answer is yes, since the floor, while not a conventional trench, was designed as a conveyance mechanism for wastewater (steam condensate and any drips or leaks onto the floor) to be directed into the sumps and from there to the wastewater treatment facility. A diagram of the chemical building is enclosed. Please note that the building is split in two in the diagram, with the top half of the page depicting the southern end of the building and the bottom half of the page showing the northern end of the building; the match line for the two halves connects the upper right and lower left of the drawing. The sumps are located in the middle of the building, right about at the match line. (Note the identifier "sump pits" in the upper right of the drawing.)

The basement floor slopes from the ends of the building in toward the middle. This is the original design of the basement, and is its current configuration. As shown on the diagram, the high point at both ends is indicated as 92' 6", and the elevation at the sumps is 91' 6", creating a 12" slope from the ends of the building toward the middle. Thus, there is a gradient across the floor that directs the wastewater in toward the sumps. The original design of the chemical building had the floor drain to the waste water sump, but the entry point into the sumps was later moved to the waste acid sump in order to allow

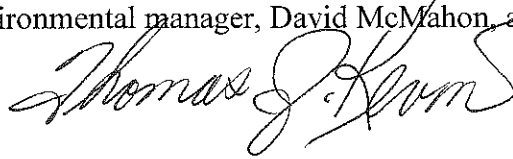
Duncan Campbell  
January 17, 2007

for greater control over the wastewater treatment process. (Material in the waste acid sump is metered to the waste water sump under the control of the wastewater treatment plant operators; the waste water sump pumps to the wastewater treatment plant itself.)

Material on the chemical building floor is thus conveyed to the sumps as part of the wastewater treatment process. The reddish colored material you asked about is believed to be solids that precipitated out of wastewater liquids conveyed to the sumps via the sloped floor.

We hope the foregoing answers any questions you may have. Please direct any inquiries to our environmental manager, David McMahon, at 313-203-9829.

Sincerely,



Tom Kevin  
Plant Manager

Enclosures

cc: Mr. Donald S. Windeler  
Robert F. Casselberry, Esq.  
Scott R. Dismukes, Esq.



ENNIFER M. GRANHOLM  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
SOUTHEAST MICHIGAN DISTRICT OFFICE



STEVEN E. CHESTER  
DIRECTOR

2007

January 8, ~~2006~~

Mr. Thomas J. Kevin, Plant Manager  
Double Eagle Steel Coating Company  
3000 Miller Road  
Dearborn, MI 48120

Dear Mr. Kevin:

SUBJECT: Return to Compliance: Double Eagle Steel Coating Company  
MID981092190

This correspondence is written to acknowledge your letter dated December 13, 2006, and various previous correspondences, which itemized the actions taken by Double Eagle Steel Coating Company, located at 3000 Miller Road, Dearborn, Michigan, to correct violation(s) in one or more of the following: Part 111, Hazardous Waste Management, and Part 121, Liquid Industrial Wastes, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; Subtitle C of the federal Resource Conservation and Recovery Act of 1976, as amended and any administrative rules or regulations promulgated pursuant to these Acts. These violations were observed by staff of the Department of Environmental Quality (DEQ) during inspections performed on February 27, 2006 and March 7, 2006. Double Eagle Steel Coating Company was notified of these violations in letters dated March 29, 2006, May 31, 2006, and September 15, 2006.

This is to notify Double Eagle Steel Coating Company that based on the information in your letter dated December 13, 2006, and various previous correspondences, staff of the DEQ has determined that Double Eagle Steel Coating Company has corrected the violations identified with regard to the regulations cited during the February 27, 2006, and March 7, 2006, inspections.

If you have any questions regarding this matter, please feel free to contact me at the number listed below or at [dayja@michigan.gov](mailto:dayja@michigan.gov).

Sincerely,

  
James A. Day  
Environmental Quality Analyst  
Waste and Hazardous Materials Division  
586-753-3835

cc: Mr. Duncan Campbell, USEPA  
Mr. Lawrence AuBuchon, DEQ



Duncan  
Campbell/R5/USEPA/US  
12/22/2006 12:20 PM

To kevin@descc.com  
cc  
bcc

Subject December 21st letter

Tom -

Thank you for providing me with the process flow diagram and narrative explanation of the electrogalvanizing line. The combination of these materials help me articulate in terms more precise my compliance concern. I appreciate DESCC's efforts to date in supplying me with its operation. Hopefully, this will help me narrow the scope of my remaining questions.

My concern based on: 1) observations I made during my February 27, 2006 compliance inspection and 2) a follow-up conference call held with DESCC personnel on or around April 12, 2006, pertained to the reddish colored substance I observed in the basement of the Chemical Building.

Now that I have the above referenced materials in front of me, I would like DESCC help in explaining which arrow describes the route the reddish substance follows in reaching the sump(s). And whether the arrow signifies conveyance to the wastewater treatment unit in a trough or trench?

I acknowledge that DESCC exercised caution in making its determination that the materials removed from the sump(s) were hazardous for the constituent of chromium and that no specific testing information was discovered in your files.

I would like to discuss this with DESCC and am available starting next week to have a call at DESCC's convenience.

Thank you again for cooperating with my request for additional information

DC

I

→ (412) 566-1998



3000 Miller Road  
Dearborn, Michigan 48120  
Telephone (313) 203-9800

December 21, 2006

Mr. Duncan Campbell  
U.S. EPA REGION 5 (Mail Code: DE-9J)  
77 West Jackson Boulevard  
Chicago, IL 60604-3507

**Re: Double Eagle Steel Coating Company**

Dear Mr. Campbell:

I am writing on behalf of Double Eagle Steel Coating Company ("DESCC") of Dearborn, Michigan to respond to your inquiry regarding a particular waste stream at DESC. Specifically, you have asked for more information about waste materials removed from the sumps in the basement of DESC's chemical building. You identified to us four hazardous waste manifests that you understood related to this waste stream. This letter will provide a description of the processes in the chemical building and of the sumps in question, which are part of DESC's wastewater treatment system.

There are four sumps in the basement of the chemical building:

Alloy Sump - Receives plating solution and various wash waters during outages.

Zinc Sump - Receives plating solution and various wash waters during outages.

Waste Acid Sump - Receives plating solution, various wash waters during outages and acidic material from the surface preparation process tank, water from the west tank farm containment area, and floor drains.

Wastewater Sump - Receives the rinse waters, scrubber water and control bleeds from all sumps listed above. The Waste Water Treatment Operator controls the amount of material being transferred from the Alloy Sump, Zinc Sump and Waste Acid Sump to the Wastewater sump depending on conditions in the treatment process.

The sumps feed into DESC's wastewater treatment plant, which is permitted via DESC's NPDES permit. A flow diagram of the chemical building is enclosed, which shows operations that feed the sumps. This diagram, in previous versions, has been submitted to the MDEQ with DESC's NPDES permit applications, since the sumps are a component of DESC's wastewater treatment system. The diagram enclosed with this letter is an updated version, and shows current operations. The sumps also collect wash waters and material that drips or leaks onto the floor of the facility.

Duncan Campbell  
December 21, 2006

Sludges and solids can build up in the sumps over time. When sludge and solids build up, the sumps are cleaned, and any solids removed and sent for disposal. Since the sludge from the sumps can contain chromium, in the exercise of caution, if a particular set of sludge material is not individually characterized, it is disposed of as D007 (characteristically hazardous for chromium) hazardous waste. As to the source of the chromium, there are small amounts of chromium contained in equipment used in DESCC's electrogalvanizing process. It is believed that the primary source is the conductor rolls, which are components of the plating cells used in DESCC's process. Through contact with the steel, the plating solution and the introduction of electrical current, some chromium in the conductor rolls can be freed, and become a constituent of the sludge that collects in the sumps.

The material removed from the sumps that is the subject of three of the four manifests you asked about, those dated 1/28/05, 5/31/05, and 9/13/05. Waste approvals were issued for the Michigan Disposal Site by the Environmental Quality Company ("EQ") for sludge containing hazardous levels of chromium; enclosed are copies of Approval No. 070202MBF, with dates of December 20, 2004 and May 31, 2005. (These cover the relevant time period of the manifests.) Based on DESCC's knowledge as a generator, the sump waste is disposed as hazardous for chromium unless it were to be tested and demonstrated to be non-hazardous. In the case of these three manifests, a review of our records indicates that these waste shipments were disposed as hazardous based on generator's knowledge, and not as a result of specific testing of these waste loads.

The fourth manifest you asked about, dated 9/9/05, appears to relate to material skimmed from the storage tank for the alloy plating solution. This waste material can also be hazardous for chromium, and was sent for disposal as D007 waste. This material is unrelated to operation of the sumps in the chemical building.

We hope the foregoing answers any questions you may have. Please direct any inquiries to our environmental manager, David McMahon, at 313-203-9829.

Sincerely,

  
Tom Kevin  
Plant Manager

Enclosure

cc: Mr. Donald S. Windeler  
Robert F. Casselberry, Esq.  
Scott R. Dismukes, Esq.



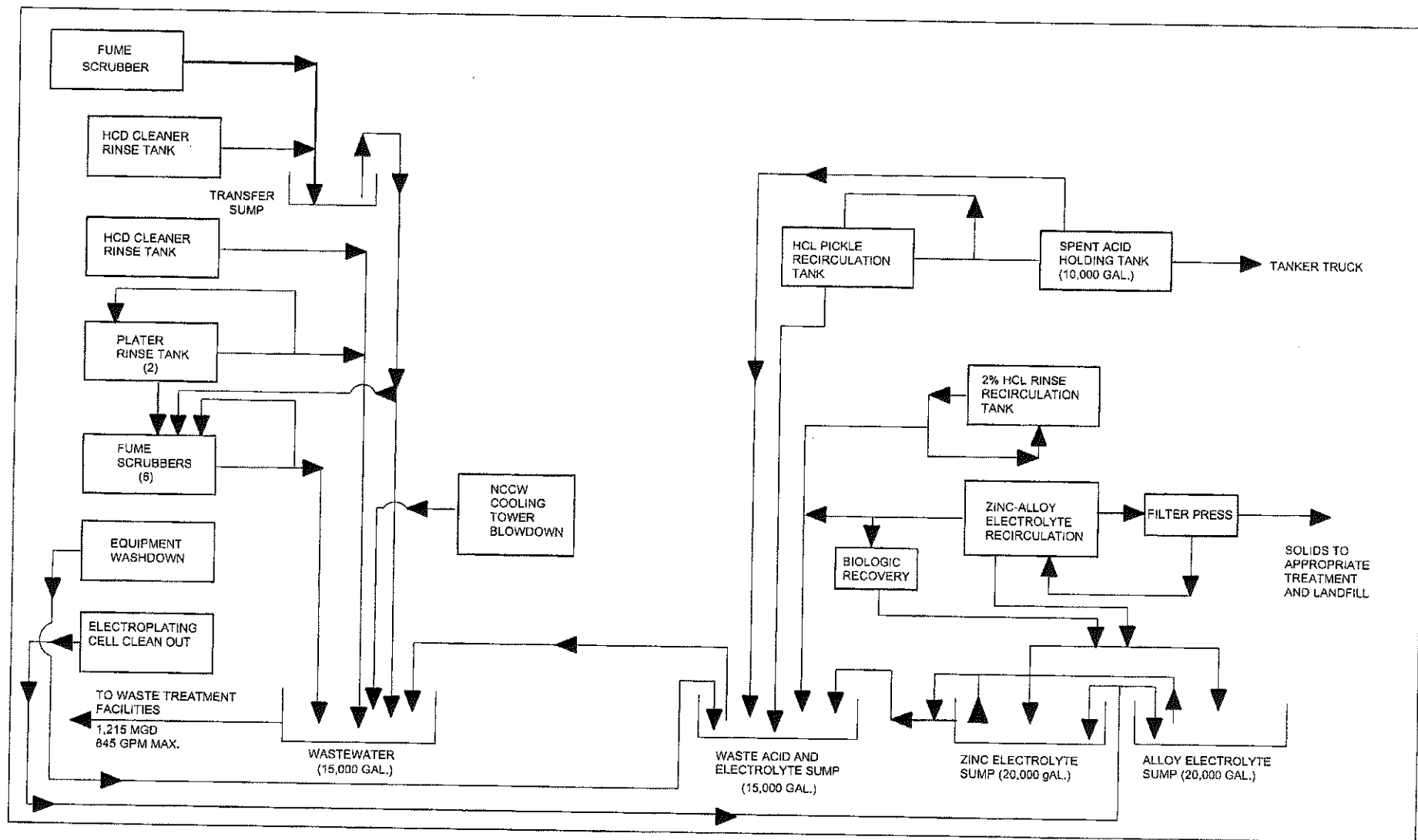


PLATE 3 Electrogalvanizing line process contributing Wastewater Treatment Plant

Double Eagle Steel Coating Company  
Dearborn, Michigan

12/18/2006 rev.



THE ENVIRONMENTAL QUALITY COMPANY<sup>®</sup>

**Generator Approval Notification**

December 20, 2004

Customer: EQ INDUSTRIAL SERVICES, INC.

Fax: (734) 547-2502

BOB ZAR  
DOUBLE EAGLE  
3000 MILLER ROAD  
DEARBORN, MI 48120

This Generator Approval Notification acknowledges the acceptability of waste material(s) into the EQ environmental protection facility identified below and ensures that this facility has the appropriate permit(s) issued by federal and state regulatory agencies to properly transport, treat, and/or dispose of the waste material(s).

**EQ FACILITY:** Michigan Disposal Waste Treatment Plant (MID000724831)  
49350 North I-94 Service Drive, Belleville, Michigan 48111

**Approval Number:** 070202MBF

**Generator EPA ID #:** MID981092190

**Approved Container:** GAL

**Expires On:** 12/14/2005

**Waste Common Name:** CHROMIUM/SLUDGE FROM ALLOY

**Comments:**

**Primary Waste Code:** D007

The Approval(s) listed above are based upon characterization information supplied to EQ by the Customer and the generator (if other than the Customer). The Customer is ultimately responsible for the accuracy and completeness of all such information, whether provided by the Customer or the generator. The Customer must notify the EQ Resource Team immediately upon knowledge of any changes to this information. This Approval and all wastes which are transported, delivered, or tendered to EQ under this Approval shall be subject to the attached Standard Terms and Conditions.

The Approval(s) will expire on the date(s) noted. Any new Approvals obtained from EQ on future business will be valid for a period of one (1) year from the date of issuance. Within 60 days of the Approval Expiration Date, you will be notified of the requirements for recertification.

**YOUR BUSINESS. OUR SOLUTIONS. A PRODUCTIVE PARTNERSHIP<sup>®</sup>**

Mail or fax to: Michigan Disposal Waste Treatment Plant, 49350 North I-94 Service Drive, Belleville, Michigan 48111. Phone: 1-800-592-5489 Fax: 1-800-592-5329



3000 Miller Road  
Dearborn, Michigan 48120  
Telephone (313) 203-9800

December 13, 2006

James A. Day  
Environmental Quality Analyst  
Waste and Hazardous Materials Division  
Michigan Department of Environmental Quality  
South East Michigan District Office  
27700 Donald Court  
Warren, MI 48092-2793

**Re: Double Eagle Steel Coating Company: MID981092190**

Dear Mr. Day:

Double Eagle Steel Coating Company ("DESCC") is writing to follow-up on our meeting of November 8 regarding management and handling of materials in DESCC's Tank 12. We are writing to outline suggested short term and long term responses to the concerns raised by MDEQ regarding inspection of the bottom of Tank 12. Our short term solution, as suggested by Mr. Aubuchon during our November 8, 2006 meeting, is a materials management approach, while the longer term solution is an engineering response to raise the bottom of the tank.

Initially, however, we recognize that MDEQ and DESCC do not agree on the application of 40 CFR 265.195 to Tank 12; DESCC's position remains as set forth in our letter dated September 29, 2006. Nevertheless, as an accommodation to the agency, DESCC proposes to do the following:

1. Short-term materials management solution: Currently, nothing contained or removed from Tank 12 is a hazardous waste. Instead, all of the material in Tank 12, can be, and is, removed and sent off-site for reuse. The caustic is sent off-site for beneficial reuse, and any removed oil will be sent off-site for recycling under the used oil program. No material removed from Tank 12 has been disposed of as hazardous waste this year.

Under this materials management approach, the material in Tank 12 is not hazardous waste, and accordingly the Part 265 regulations, including the inspection requirements in 265.195, do not currently apply to Tank 12.

James A. Day  
December 13, 2006

To ensure that the Tank 12 material can all be sent off-site for beneficial reuse, DESCC has obtained written confirmation from Dynecol, the company that receives and beneficially reuses the caustic material, that Dynecol can and will accept DESCC's full volume of Tank 12 caustic. (A copy of a letter from Dynecol confirming Dynecol's ability and commitment to accept the Tank 12 material is attached.) While in the past there has been the potential for Tank 12 material to be disposed as hazardous waste rather than sent for beneficial reuse as a result of logistics, scheduling or convenience, DESCC will implement a new procedure that forbids the Tank 12 caustic from being disposed as hazardous waste rather, than being beneficially reused, unless there is absolutely no other option.

DESCC believes that the approach described above should prove satisfactory for Tank 12 to avoid being subject to the Part 265 regulations, at least until such time as the longer term engineering solution, described below, can be implemented.

2. Long-Term Engineering Solution: DESCC is working with a consultant on a design for a sub-base for Tank 12. The tank will be elevated 18" above the existing concrete pedestal by means of structural steel beams spanning the pedestal along with a flat plate covering the beams that will support the entire tank bottom. The structure will have 2 rows of steel cross members tying the other beams together for structural rigidity and strength. The flat plate will have 1/2" diameter holes drilled in it, spaced two feet apart and parallel to the structural steel beams, to allow for leak detection.

This arrangement will provide the necessary structural strength to support the tank and its contents and allow for visual inspection for tank bottom leaks should they occur. Additionally, associated mechanical, piping and electrical interconnections will need to be altered to accommodate the elevation change of the tank.

The final design for this potential engineering solution is still being developed. Before any design is finalized, DESCC requests MDEQ's comments on this proposed solution to the concerns that have been expressed by MDEQ. DESCC will not implement this engineering solution unless MDEQ indicates that raising the tank, in the manner described above, will fully satisfy MDEQ's concerns regarding inspection of the bottom of the tank.

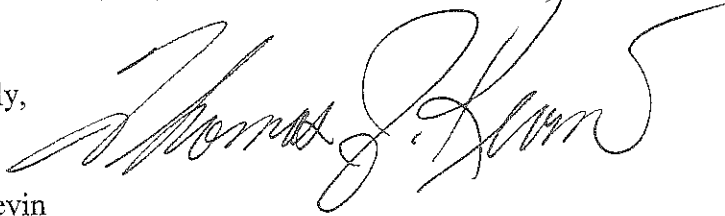
Assuming MDEQ concurs that this is an appropriate solution that fully addresses MDEQ's concerns, installation of the sub-base would depend on DESCC's operating schedule (the installation would have to be conducted during a scheduled plant shutdown) and weather considerations.

James A. Day  
December 13, 2006

We look forward to speaking with you about these proposed solutions

Please direct any inquiries to our environmental manager, David McMahon, at 313-203-9829.

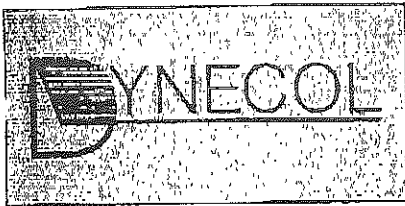
Sincerely,

A handwritten signature in black ink, appearing to read "Tom Kevin", with a large, sweeping flourish extending to the right.

Tom Kevin  
Plant Manager

Enclosure

cc: Mr. Duncan Campbell, U.S. EPA (w/encl)  
Mr. Donald S. Windeler                   "  
Robert F. Casselberry, Esq.               "  
Scott R. Dismukes, Esq.                   "

**DYNECOL, INC.**

---

6520 GEORGIA STREET  
DETROIT, MICHIGAN 48211  
PHONE: (313) 571-7190  
FAX: (313) 571-7141

December 7, 2006

Double Eagle Steel Coating Company  
Attn: Mr. Dave McMahon  
3000 Miller Road  
Dearborn, MI 48120

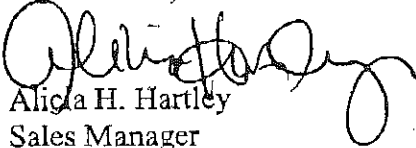
Dear Dave:

As a fully permitted Part B TSDF and operating under Michigan PA 451 Part 111, Dynecol has the ability to receive certain materials outlined in our operating permit as substitute commercial products for beneficial re-use. Double Eagle has been generating a waste caustic solution out of Tank 12 that has been evaluated and utilized as a substitute commercial product under approval number 3754. Dynecol has the ability to properly transport and utilize the maximum capacity of the storage tank (20,000 gallons) as a reagent in our aqueous treatment plant. Dynecol has 144,000 gallons per day of Permitted Hazardous Treatment capacity that utilizes this material. Additionally, in support of this reuse stream, Dynecol also has (2) additional on-site bulk liquid caustic storage tanks with a combined capacity of 55,000 gallons which could be used to hold additional Tank #12 contents in the event of an emergency or sudden need for removal of material from Tank #12.

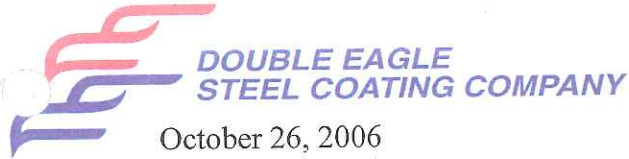
Consequently, Dynecol is confident that it can manage the daily process volume of Double Eagle Tank #12 material as well as utilize the tank contents as a reusable material.

If you have any questions or require further information please do not hesitate to contact me at 313-530-9224.

Sincerely,  
**DYNECOL, INC.**

  
Alicia H. Hartley  
Sales Manager





October 26, 2006

3000 Miller Road  
Dearborn, Michigan 48120  
Telephone (313) 203-9800

James A. Day  
Environmental Quality Analyst  
Waste and Hazardous Materials Division  
Michigan Department of Environmental Quality  
South East Michigan District Office  
27700 Donald Court  
Warren, MI 48092-2793

**Re: Double Eagle Steel Coating Company: MID981092190**

Dear Mr. Day:

Double Eagle Steel Coating Company ("DESCC") is writing with regard to the characterization of the several waste streams addressed in our past correspondence. Specifically, DESCC had agreed to accommodate MDEQ's request to confirm our characterization of four waste streams, and in our letter of September 29, 2006 we committed to do the sampling for the characterizations before the end of October, to the extent possible. We are writing now to enclose laboratory results for sampling of three of the four waste streams; the remaining waste stream has been sampled but the results have not yet been received.

The enclosed test results include:

1. Tank 12: As you are aware, the aqueous material in Tank 12 is beneficially reused, and therefore is not classified as waste. The enclosed test results demonstrate that the Tank 12 material, if disposed, would only be hazardous due to corrosivity.
2. Tanks 43/44: The used oil in Tanks 43 and 44 is sent off-site as used oil. The enclosed test results confirm that this material is not hazardous.
3. Filter Cake from zinc plating: The filter cake produced by the plating solution filter press is described in the laboratory results as Door 10 Filter Cake. The test results show that this material is not hazardous.

As noted, sampling of the fourth waste stream identified by MDEQ, that of filter cake from alloy plating, has been conducted, but the sample results have not yet been received. Sampling of this waste stream was conducted later than sampling of the other streams, since it could only be conducted when DESCC was performing alloy plating. The results will be provided once they are received.

James A. Day  
October 26, 2006

Please direct any inquiries regarding the foregoing responses to our environmental  
counsel, Scott Dismukes at 412-566-~~1999~~.

1998

Sincerely,

A handwritten signature in purple ink, appearing to read "Tom Kevin", written over the word "Sincerely,".

Tom Kevin  
Plant Manager

cc: Mr. Duncan Campbell, U.S. EPA  
Mr. Donald S. Windeler  
Robert F. Casselberry, Esq.  
Scott R. Dismukes, Esq.

Duncan  
Campbell/R5/USEPA/US  
10/24/2006 09:29 AM

To michael mcclary  
cc Paul Little/R5/USEPA/US  
bcc

Subject Double Eagle

Mike ---

Two issues remain.

1st --- an outside tank [Tank#12]. It was learned at the time of the inspection that DESSC allowed this tank to overflow on a pretty frequent basis. Buried within the two responses USS has submitted for DESSC, the high level indicator alarm was either ignored or malfunctioning as a cut-off. USS has made the claim on behalf of DESSC -- within the two submittals -- that the material in the tank is going off-site to a TSD as a substitute for product [ pH adjustment at Dynecol's wastewater treatment facility]. They have provided documentation that most [>90%] of the time this holds true. A couple of loads were rejected by Dynecol and handled as waste once the determination was made. The material that overflowed into the secondary containment around Tank #12 was either sent off-site as a Liquid Industrial Waste or as a hazardous waste. USS has taken the position that Tank #12 is never a hazardous waste tank. This came as a surprise to me, but now I'm starting to think that given these facts, Tank #12 should not be our focal point - we should focus on the secondary containment as the tank. And the noncompliance would be DESSC's failure to have secondary containment for the secondary containment.

2nd ---- precipitate from washing out the plating tanks. This is washed out of the individual baths and free falls into the basement [a/k/a "snake pit"]. It is washed by pressure hose [ I have plenty of pictures] across concrete floor until it ultimately is pushed into a series of sumps. We were told during the inspection, that periodically, the precipitate is removed from the sump. The effluent cascades through a series of four sumps and flows to the on-site wastewater treatment facility. I have some waste characterization and waste analysis from a TSD which indicates this material was profiled as D 002/D007. It seems unlikely, given the amount of dilution from washing the plating bath with water and then pushing the precipitate toward the sump, that the volume would retain the D002 [acid from the bath] characteristic. Given the uncertainty of whether I have the right waste profile for this material, it seems like this issue is better suited for a § 3007 than immediately issuing an allegation for "mismanagement of a waste." Using MDEQ's manifest tracking report it appears that the generation of a chromium waste is episodic in nature, occurring only twice during 2005 and ??? during 2006.



October 12, 2006

Bob Zarb  
DOUBLE EAGLE STEEL COATING COMPANY  
3000 Miller Road  
Dearborn, MI 48120-

Clayton Work Order No. 06091231

Reference:

Dear Bob Zarb:

Clayton Group Services received 3 samples on 9/29/2006 for the analyses presented in the following report.

Enclosed is a copy of the Chain-of-Custody record, acknowledging receipt of these samples. Please note that any unused portion of the samples will be discarded 30 days after the date of this report, unless you have requested otherwise.

This material is confidential and is intended solely for the person to whom it is addressed. If this is received in error, please contact the number provided below.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact a Client Services Representative at (800) 806-5887.

Sincerely,

Karen Coonan  
Client Services Representative

cc:

## ANALYTICAL RESULTS

Date: 09-Mar-06

Client: DOUBLE EAGLE STEEL COATING COMPANY

Work Order No: 06030073

Project:

Lab ID: 06030073-001B

Client Sample ID: SLUDGE-ALLOY SNAKE  
PIT

Matrix: LEACHATE

Tag Number:

Collection Date: 2/28/2006

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
<b>ICP METALS; LEACHATE: METHOD EPA 1311/6010B</b>							
Arsenic	0.25	0.10		mg/L	1	3/3/2006	DH
Barium	0.14	0.10		mg/L	1	3/3/2006	DH
Cadmium	ND	0.050		mg/L	1	3/3/2006	DH
Chromium	1.7	0.10		mg/L	1	3/3/2006	DH
Lead	0.32	0.10		mg/L	1	3/3/2006	DH
Selenium	ND	0.20		mg/L	1	3/3/2006	DH
Silver	ND	0.020		mg/L	1	3/3/2006	DH
<b>TCLP MERCURY; METHOD EPA 1311/7470A</b>							
Mercury	ND	0.0010		mg/L	1	3/6/2006	RS

Qualifiers: ND - Not Detected at the Reporting Limit (RL).  
J - Analyte detected below the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
T - Tentatively Identified Compound (TIC)





Duncan  
Campbell/R5/USEPA/US  
10/02/2006 01:50 PM

To dayja@michigan.gov  
cc aubuchol@michigan.gov, Paul Little/R5/USEPA/US  
bcc

Subject Double Eagle response dated September 29th

Jim -

In DESCC's recent response to Issue #2 [Waste Characterization]. See the final paragraph on page three of their response. DESCC references the alloy plating filter cake.

On April 12th, I had a phone conversation with Marc Swientoniowski, Tom Kevin, and Bob Zarb who explained DESCC plating process and stated that precipitate from the four cascading sumps found in the basement of the Chemical Building is periodically sent off-site as a chromic acid (D007/D002) hazardous waste. Since these sumps are cascading the bulk of precipitate cleaned out of the system is usually found in the final sump. This area was also known as the "snake pit." According to documents you provided me, DESCC manifested several loads of this material off-site during 2005. It is unclear to me whether DESCC's reference to alloy plating filter cake is one in the same material. The plating filter cake that I recall was termed "Door 10 sludge" and was being managed as a Liquid Industrial Waste.

DC



3000 Miller Road  
Dearborn, Michigan 48120  
Telephone (313) 203-9800

September 29, 2006

James A. Day  
Environmental Quality Analyst  
Waste and Hazardous Materials Division  
Michigan Department of Environmental Quality  
South East Michigan District Office  
27700 Donald Court  
Warren, MI 48092-2793

**Re: September 15, 2006 Letter of Violation to Double Eagle Steel Coating Company:  
MID981092190**

Dear Mr. Day:

Double Eagle Steel Coating Company ("DESCC") is writing to respond to your September 15, 2006 letter regarding hazardous and liquid waste management issues at DESCSC's facility.

Initially, however, DESCSC is obligated to state for the record its disagreement with the characterization of certain of the background issues reviewed on the first two pages of your letter. Specifically, it continues to be DESCSC's position that any release of the spent caustic material from Tank 12 into the Tank 12 secondary containment area was not improper or in violation of any applicable requirement. Additionally, to the extent that DESCSC has modified or enhanced its procedures, as an accommodation to the concerns raised by MDEQ, such actions are not to be construed as agreement that the pre-existing status was in violation of any requirement or restriction.

**Issue 1: Tank 12 Inspections**

Your September 15th letter again notes that Tank 12 is situated on top of a raised concrete slab, and raises the concern that this situation prevents visual inspections of the bottom of the tank. As we understand it, it is your contention that the inability to inspect the bottom of the tank results in a violation of the daily inspection requirements of 40 CFR 265.195. Your current letter also now raises the question of compliance with the liner requirements of 40 CFR 265.193(e)(1).

Initially, we think it is important to recognize that Tank 12 is most properly categorized as a "onground storage tank", rather than an "aboveground storage tank". Reference to the definitions in 40 CFR 260.10 and MAC 299.9101 and 9106 reveals that the distinction between these two types of tanks is the question of whether the entire surface of the tank (including the bottom) is above the plane of the surrounding surface. From these definitions, it is immediately clear that Tank 12 is an onground, rather than an aboveground, tank. To the extent that Tank 12 may have been previously described as an aboveground tank as a generic description to distinguish it from an underground tank, DESCSC regrets any confusion

James A. Day  
September 29, 2006

that might have been created about its exact regulatory status within the context of the hazardous waste regulations.

#### 40 CFR 265.195 Inspections

As set forth in our June 30 letter, DESCC disagrees that the current situation presents any violation of 40 CFR 265.195. It is recognized that Section 265.195(a)(2) requires that the aboveground portions of a tank system be inspected. As noted, though, onground tanks are a recognized category in the regulations, and are distinguished by the fact that the exterior of the bottom of the tank is not visible. As such, the bottom of an onground tank should not be considered an "aboveground portion" of the tank system, and thus is not subject to the inspection requirement. Indeed, 40 CFR 265.196(e)(4) recognizes that it is not possible to visually inspect the bottom of an onground tank.

To the extent that the ultimate purpose of 265.195 is to ensure adequate inspections of tanks, Tank 12 presents a better circumstance than a tank that is merely flush with the ground surface. At Tank 12, the top of the pedestal on which the tank sits, and the circumference of the base of the tank, are easily visible. Were there to be a leak of material from the tank through the bottom of the tank, the material would leak out from underneath the edge of the tank. Were this to occur, the leaking material would be visible, and the leak would be identifiable during the daily inspections.

Overall, adequate inspections of Tank 12 can be conducted that satisfy the visual inspection requirements in the regulations. The regulations clearly allow for the existence of onground tanks, and recognize that the bottom of such tanks cannot be visually inspected. An interpretation of 265.195 that would require onground tanks to be modified into aboveground tanks would effectively ban the existence of onground tanks. That would be an overly restrictive interpretation that is contrary to the established regulatory scheme.

#### 40 CFR 265.193 liners

Your September 15 letter also raises the question of the compliance of the secondary containment system with the liner requirements of 40 CFR 265.193(e)(1). Since the liner system is capable of containing 100% of the capacity of the tank, is designed to prevent run-on or infiltration of rainwater into the containment area, and is free of cracks and gaps, the containment system is in compliance with 265.193(e)(i)-(iii). Accordingly, and based on the wording of your letter, DESCC understands your primary concern to be compliance with the requirements in 265.193(e)(iv) – i.e. that the liner completely surround the tank and completely cover all surrounding earth likely to come into contact with waste is released from the tank. DESCC believes that that liner meets these requirements. It extends completely around the tank, and it also covers all surrounding earth likely to come into contact with wastes, if any were released from the tank. The threat that material from the tank would leak through the bottom of the tank and then vertically downward through at least four feet of concrete (the height of the pedestal under the tank) is so remote that the earth underneath



James A. Day  
September 29, 2006

the concrete containment and pedestal cannot be said to be "likely" to come into contact with material released from the tank, were such to ever occur.

DESCC would like to reach a better understanding and agreement as to the application of these regulations to Tank 12. If the foregoing discussion does not resolve this issue, DESCC suggests that we schedule a meeting to discuss this issue further.

## **Issue 2: Waste Characterization**

DESCC appreciates your comments on the planned characterization activities for the four waste streams at issue. DESCC had previously committed to voluntarily conduct characterization work in order to confirm its existing characterizations of these waste streams. DESCC had not yet conducted this work, since, as indicated in our prior correspondence, we wanted to give MDEQ the opportunity to comment on the scope of the planned analysis.

In addition to the analysis proposed by DESCC, you have asked us to evaluate whether any of the wastes are listed hazardous wastes and to also analyze for the full range of toxicity contaminants, and not just the metals listed in Table 1 of 40 CFR 261.29. As to the question of listed wastes, it is DESCC's belief that none of these waste streams are listed hazardous wastes. If you have a particular listed waste in mind, please so advise us, so we can respond to that issue specifically.

As to toxicity characteristic testing, DESCC's proposal already addressed TCLP testing for eight metals. Based on DESCC's knowledge of its waste stream, there is no reason to believe that any of the volatile or semi-volatile contaminants in the D004 – D043 list would be present in our waste stream at all. Testing for such contaminants would be a waste of time and resources. However, and purely as an accommodation to MDEQ's concerns in this regard, DESCC will agree to conduct toxicity testing for the full range of contaminants in D004 – D043 for the caustic from Tank 12, the used oil from Tanks 43/44, and the filter cake waste streams. The used oil will also be tested for total halogens.

With specific regard to the used oil stored in Tanks 43 and 44, the full scope of testing for the hazardous characteristics described in D001 – D043 is overbroad and unnecessary. Given a used oil waste stream, the material is subject to 40 CFR Part 279 rather than Parts 260-266 (and similarly subject to MAC Rules 299.9809 to 9816 rather than the Part 111 hazardous waste rules). While DESCC will conduct the full range of testing described above, as an accommodation to MDEQ, we anticipate that future routine testing will consist of a more limited range of parameters.

DESCC intends to conduct this testing within 30 days of the date of this letter, and will provide the results to MDEQ upon receipt. Sample collection is being performed today, September 29<sup>th</sup>, for three of the waste streams, with the exception of the alloy plating filter cake. The alloy plating filter cake samples can only be taken when the relevant process (alloy plating) is being run. DESCC anticipates that it will conduct alloy plating within the next

James A. Day  
September 29, 2006

30 days; if alloy plating is not run within the next 30 days, then DESCSC will take the relevant sample at the earliest opportunity.

### **Issue 3: Material from Tank 12 Secondary Containment**

Material removed from the secondary containment area around Tank 12 was tested for pH to determine whether or not it was hazardous. Any material that was hazardous was shipped out as hazardous waste. Any material that tested as non-hazardous was shipped as non-hazardous waste. It is DESCSC's expectation that MDEQ is more concerned about whether any hazardous material was disposed as non-hazardous than the reverse situation. In this regard, it is DESCSC's understanding that the material shipped out as non-hazardous would have been tested by the receiving facility to check its characteristics. If the material tested as hazardous, DESCSC would have been informed and the shipment potentially returned to DESCSC.

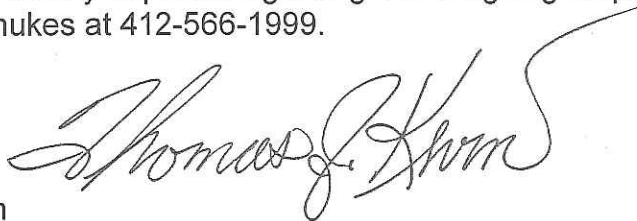
DESCSC questions the citation of 40 CFR 268.7(a)(5) as relevant to this issue. That section applies to hazardous waste generators who treat hazardous waste. DESCSC does not engage in the treatment of hazardous waste, and is not subject to this section.

### **Issue 4 – High Level Alarm**

DESCSC has continued to test the high level alarm on a regular basis. The most recent test was conducted on September 15, 2006, and the system was found to be working properly.

Please direct any inquiries regarding the foregoing responses to our environmental counsel, Scott Dismukes at 412-566-1999.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas J. Khm". The signature is fluid and cursive, with a large, sweeping flourish at the end.

Tom Kevin  
Plant Manager

James A. Day  
September 29, 2006

cc: Mr. Duncan Campbell, U.S. EPA  
Mr. Donald S. Windeler  
Robert F. Casselberry, Esq.  
Scott R. Dismukes, Esq.



STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
SOUTHEAST MICHIGAN DISTRICT OFFICE



LENNIFER M. GRANHOLM  
GOVERNOR

STEVEN E. CHESTER  
DIRECTOR

September 15, 2006

Mr. Thomas J. Kevin, Plant Manager  
Double Eagle Steel Coating Company  
3000 Miller Road  
Dearborn, Michigan 48120

Dear Mr. Kevin:

SUBJECT: Double Eagle Steel Coating Company (Double Eagle)  
MID981092190

This correspondence is written to acknowledge receipt of your letters, dated June 30, 2006 and August 18, 2006, which itemized actions taken by Double Eagle, located at 3000 Miller Road, Dearborn, Michigan (Facility), to correct violation(s) in one or more of the following: Part 111, Hazardous Waste Management (Part 111), and Part 121, Liquid Industrial Wastes, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; Subtitle C of the federal Resource Conservation and Recovery Act of 1976, as amended and any administrative rules or regulations promulgated pursuant to these Acts. These violations were observed by staff of the Department of Environmental Quality (DEQ) during inspections conducted on February 27, 2006 and March 7, 2006, and the Facility was notified of these violations in Letters of Warning dated March 29, 2006 and May 31, 2006.

The Facility had responded to the initial March 29, 2006, Letter of Warning in an April 28, 2006, response letter and in a May 15, 2006, follow-up letter. A follow-up Letter of Warning was issued May 31, 2006, to address continued and newly identified violations.

Subsequent to the DEQ's February 27, 2006 and March 7, 2006 site visits, and the aforementioned issued Letters of Warning, the Facility has performed a number of corrective actions to address violations noted within the March 29, 2006 and May 31, 2006, Letters of Warning, to include:

- Discontinuance of continued intentional and illicit releases of spent caustic bath into the secondary containment structure (SCS) associated with Tank 12. Development and/or revision of standard operating procedures that acknowledge the need for the Facility to limit discharges of the spent caustic bath into the Tank 12 SCS, and to allow for the expedient removal and appropriate final disposition of released spent caustic bath materials.
- Reestablishment of spill prevention controls that include a high level alarm that supports minimizing the potential for releases of spent caustic bath into the Tank 12 SCS.
- Development and/or revision of standard operating procedures that ensure proper field characterization of spent caustic bath released into the Tank 12 SCS and recording of field readings related to the same, and that include the performance of daily inspections of Tank 12 and its associated SCS.



- Labeling of Tank 12 with a "Hazardous Waste" identifier.
- Providing confirmation documentation of the volumes of Tank 12 spent caustic waste sent off-site under bills of lading for beneficial reuse of the same.

Violations identified within the March 29, 2006 and May 31, 2006, Letters of Warning, and not considered resolved, include the following:

1. Rule 299.9306(1): 40 CFR 265.195: the requirement of the Facility, as a Large Quantity Generator of hazardous waste (LQG) accumulating hazardous waste in a hazardous waste tank, to inspect at least once each operating day, above ground portions of the tank system, if any, to detect corrosion or releases of waste. DEQ staff noted during the performed inspections that Tank 12, a 20,000 gallon spent caustic process bath, above ground storage tank, sits on a concrete slab. This construction is referenced in the September 1997, Subpart J tank assessment report included within Exhibit A of the April 28, 2006, response letter, and also within a June 12, 2006, tank audit report; Above Ground Storage Tank (AST) & Containment Integrity Audit, included within the June 30, 2006, response letter. The construction of Tank 12 on a concrete slab disallows visual inspection of the tank bottom to be completed by Facility personnel. As such, the Facility is unable to meet the daily inspection requirements of 40 CFR 265.195.

Please document, in response to this letter, provisions that have been made, or that will be made, by the Facility, to elevate or otherwise reconstruct, modify, or replace Tank 12 to allow for the daily inspection of the above ground portion of the spent caustic tank system, to include the tank bottom; ensuring as well, that the external liner associated with the secondary containment system extends completely underneath and covers all secondary containment surfaces underlying the elevated or otherwise reconstructed, modified, or replaced Tank 12, pursuant to the requirements of 40 CFR 265.193(e)(1).

Alternatively, in the event it is determined by the Facility that elevation, reconstruction, modification, or replacement of Tank 12 is not a feasible or otherwise desirable alternative for the Facility, please document a schedule for the discontinued use and appropriate closure of Tank 12 as a spent caustic bath containment structure, pursuant to the requirements of 40 CFR 265.197.

2. Rule 299.9302: Rule 299.9307(1): 40 CFR 262.11, 40(c): 40 CFR 268.7(a)(6) & (8): the requirement of the Facility, as a generator of hazardous waste and liquid industrial waste (LIW), to characterize that waste in accordance with the requirements of Part 111, and the requirements of 40 CFR 262, Federal Standards Applicable to Hazardous Waste Generators, specifically addressing the following waste streams generated by the Facility: 1) spent caustic process bath stored within Tank 12; 2) waste water and hydraulic oil stored within aboveground storage tanks 43 and 44; 3) filter cake containing free-liquids, associated with the Facility's zinc electro-galvanizing process, and 4) filter cake containing free-liquids, associated with the Facility's alloy electro-galvanizing process.

The Facility identified within the June 30, 2006 and August 18, 2006, response letters that it would arrange for the updated characterization of the four identified waste streams, for the Michigan Eight Metals via toxicity characteristic leaching procedure, reactivity, corrosivity, and ignitability. Those letters, however, did not include that these waste streams would be reviewed as well for the characteristic of toxicity (D004 through D043), and also reviewed to

determine whether the waste streams would be considered a "listed" hazardous waste, pursuant to the provisions of 40 CFR 261.

Please document, in response to this letter, the Facility's schedule for performing the appropriate characterization reviews (reactivity, corrosivity, ignitability, toxicity and 40 CFR 261 listing) of the four identified waste streams, and the schedule for providing to DEQ the results of those characterization activities.

3. Rule 299.9302: Rule 299.9307(1): 40 CFR 262.11: 40 CFR 262.40(c): 40 CFR 268.7(a)(5): the requirement of the Facility, as a generator of hazardous waste and LIW, to characterize that waste in accordance with the requirements of Part 111, and the requirements of 40 CFR 262, and to maintain records of that characterization on-site for a period of three (3) years. The Facility has not been able to provide to the DEQ, records of field pH or other measurements taken to confirm the characteristics (hazardous or non-hazardous) of spent caustic process bath discharged into the Tank 12 SCS and shipped off as LIW between the period of September 26, 2005 and January 5, 2006. A total of 41,000 gallons of the discharged spent caustic process bath were reported to be sent off-site as a non-hazardous waste, under manifest to a final destination facility, with no documentation made available to confirm that the waste stream was non-hazardous and not otherwise a characteristic or listed hazardous waste, and to support the identified historical waste stream being appropriately managed as a LIW. The Facility established within the June 30, 2006, response letter that field pH readings were not recorded and maintained by the Facility regarding these waste shipments, but that the Facility has revised its recordkeeping procedures to ensure that testing of each shipment of material from the Tank 12 secondary containment area is adequately documented, and that such records are maintained for a minimum of three years.

DEQ staff understand this violation to be not resolvable by the Facility. No additional response is necessary regarding this violation.

4. Rule 299.9306: 40 CFR 265.194: the Facility, as a LQG of hazardous waste accumulating hazardous waste in a hazardous waste tank, is required to use appropriate controls and practices to prevent spills and overflows from the tank or secondary containment system, to include, at minimum, overfill prevention controls such as level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank. The April 28, 2006, response letter documents that Tank 12 was designed with high level alarms and overfill protection, and that the high level alarm had been repaired and most recently tested on April 16, 2006. The Facility established within the June 30, 2006, response letter that the Facility was not able to establish the period of time the high level alarm was not functioning properly.

DEQ staff understand this violation to be not resolvable by the Facility. No additional response is necessary regarding this violation.

The Facility must respond to the above violations 1 and 2, noted in this letter. Please submit documentation to this office regarding those actions taken to address the violations and provide the necessary clarifications **by September 29, 2006**. The DEQ will evaluate that response, determine the Facility's compliance status, and notify you of this determination.

This letter of warning does not preclude, nor limit, the DEQ's ability to initiate any other enforcement action, under state or federal law, as deemed appropriate.

If you have any questions, feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "James A. Day", is written over the typed name and title.

James A. Day  
Environmental Quality Analyst  
Waste and Hazardous Materials Division  
586-753-3835

cc: Mr. Duncan Campbell, USEPA  
Mr. Lawrence AuBuchon, DEQ



**DOUBLE EAGLE  
STEEL COATING COMPANY**

August 18, 2006

3000 Miller Road  
Dearborn, Michigan 48120  
Telephone (313) 203-9800

*via Certified Mail, Return Receipt Requested*

James A. Day  
Environmental Quality Analyst  
Waste and Hazardous Materials Division  
Michigan Department of Environmental Quality  
South East Michigan District Office  
27700 Donald Court  
Warren, MI 48092-2793

Working  
Copy

**Re: May 31, 2006 Letter of Violation to Double Eagle Steel Coating Company:  
MID981092190**

Dear Mr. Day:

Double Eagle Steel Coating Company ("DESCC") is writing in further response to MDEQ's May 31, 2006 letter that alleged violations of hazardous and liquid waste management requirements. As indicated in our June 30 response, there were several sets of requested documents that took some additional time to collect. We are writing now to enclose those documents.

This effort took longer than expected due to the reassignment of the contractor, Marc Swientoniowski, who had been assisting DESCSC with environmental issues; Mr. Swientoniowski was reassigned by his employer, and not at DESCSC's request.

Enclosed with this letter are:

1. As requested in the Additional Clarifications section of your letter, regarding the Beneficial Reuse Issue, copies of bills of lading for shipments of caustic to Dynecol for beneficial reuse have been provided. You requested copies of bills of lading from February 2005 through March 2006. Copies of bills of lading dating back through June 2005 were located initially, and bills of lading from June 2005 through May 2006 were enclosed with our June 30 letter as Exhibit 9. Enclosed with this current letter are additional bills of lading covering the time period of February 2005 through September 2005.

Based on the additional bills of lading collected, we have prepared a revised spreadsheet listing shipments from Tank 12; this updates the listing provided as Exhibit H to our April 28, 2006 letter.

2. MDEQ's May 31<sup>st</sup> letter identified several waste approval numbers listed in Exhibit N which were not enclosed with our April 28<sup>th</sup> letter. You requested that copies

August 18, 2006

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of the corresponding waste approvals be provided. Accordingly, we are writing to enclose the following documents:

- a. Approval # 71205-0, from Usher Oil.
- b. Approval # 080805-0, from Usher Oil.
- c. Approval # K07502, from EQ Industrial Services
- d. Regarding approval # 093002, this approval was issued by Edwards Oil Service. Edwards Oil is no longer in business, and a specific copy of the waste approval could not be located. However, the Edwards Oil approval numbering system was based on the date of issuance of the approval. In this case, the approval was issued on 09/30/02. A copy of a November 1, 2002 letter from Edwards Oil accepting a used oil waste profile submitted on or about September 26, 2002 is attached. It is believed that this waste profile was approved on September 30, 2002, and received the waste approval designation of 093002.
- e. Approval # FF05293, from EQ Detroit.
- f. Approval # HF054693, from EQ Detroit.
- g. Approval # 12279, from Polar Environmental Services.

3. Additionally, DESCC needs to revise some of the information provided in our June 30 letter regarding two specific non-hazardous waste shipments that you asked about in your May 31 letter.

a. Regarding the 4/06/05 shipment to EQ Resource Recovery. The correct waste approval number is K07502, and not DO06459. DO06459 later replaced K07502 after K07502 expired. However, at this time of this shipment, April 2005, K07502 was the effective waste approval for shipments of this material to EQ Resource Recovery.

b. Regarding the 1/9/06 shipment to EQ Detroit, further investigation has determined that the Exhibit N spreadsheet listed the wrong receiving facility, and not the wrong waste approval number. The listed waste approval number, 080805 is correct. However, this shipment went to Usher Oil, not EQ Detroit. Waste approval 080805 is an Usher waste approval. DESCC has checked with Usher and confirmed that this shipment was received by Usher.

#### Waste Characterization Issue

As indicated in our June 30 letter, DESCC is willing to conduct testing to confirm its characterization of several types of material generated at DESCC. Per your request, DESCC is allowing time for MDEQ to comment on the proposed testing for each of the

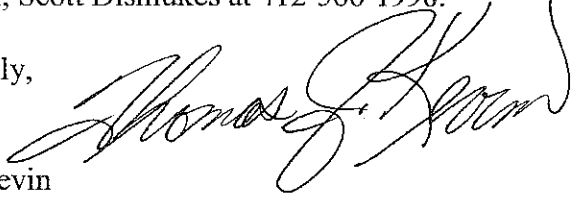
August 18, 2006

Page 3

relevant materials. To date, DESCC has not received any comment on this issue from MDEQ. We wanted to offer MDEQ an additional opportunity to comment on the proposed testing, before conducting it, to ensure that we are proceeding on the most efficient path. Please advise us if the analyses proposed in our June 30, 2006 letter are a satisfactory response to your characterization request.

Please direct any inquiries regarding the foregoing responses to our environmental counsel, Scott Dismukes at 412-566-1998.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas J. Kevin", written over a horizontal line.

Tom Kevin  
Plant Manager

Enclosures

cc: Mr. Duncan Campbell, U.S. EPA  
Mr. Donald S. Windeler  
Robert F. Casselberry, Esq.  
Scott R. Dismukes, Esq.





ANNUNIFER M. GRANHOLM  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
SOUTHEAST MICHIGAN DISTRICT OFFICE



STEVEN E. CHESTER  
DIRECTOR

May 31, 2006

CERTIFIED MAIL

Mr. Thomas J. Kevin, Plant Manager  
Double Eagle Steel Coating Company  
3000 Miller Road  
Dearborn, Michigan 48120

Dear Mr. Kevin:

SUBJECT: Double Eagle Steel Coating Company, Dearborn, Michigan  
MID981092190

This is to inform you that, based on inspections performed on February 27, 2006 and March 7, 2006, of the above-referenced facility (hereafter Facility), conducted by staff of the Department of Environmental Quality (DEQ), Waste and Hazardous Materials Division (WHMD), identified violations of Part 111, Hazardous waste Management (Part 111), and Part 121, Liquid Industrial Wastes (Part 121), of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA); Subtitle C of the federal Resource Conservation and Recovery Act of 1976, as amended, remain unresolved. The Facility was notified of these violations in a letter dated March 29, 2006. The Facility responded to the March 29, 2006, Letter of Warning, in an initial April 28, 2006 response letter and in a May 15, 2006 follow-up letter.

As a result of the completed inspections and review of the Facility responses, staff of the DEQ has determined that the above Facility is still in violation. Specifically, the Facility has not resolved the following violations cited in the March 29, 2006, Letter of Warning:

**Violation 1: Continued violation for not providing adequate updated characterizations of the following waste streams: 1) spent caustic process bath stored within Tank 12 and historically released from Tank 12 into the secondary containment structure (SCS) associated with Tank 12; 2) wastewater and hydraulic oil accumulated within Tanks 43 and 44; 3) filter cake containing free-liquids that is generated from the Facility's zinc electro-galvanizing process, and 4) filter cake containing free-liquids that is generated from the Facility's alloy electro-galvanizing process.**





Rule 299.9302: Rule 299.9307(1): 40 CFR 262.11, 40(c): 40 CFR 268.7(a)(6) & (8): the Facility, as a generator of hazardous waste and liquid industrial waste (LIW), is required to characterize that waste in accordance with the requirements of Part 111, Hazardous Waste Management, and rules promulgated under that part, and the requirements of 40 CFR 262, Federal Standards Applicable to Hazardous Waste Generators, and to maintain records of that characterization on site for a period of three (3) years. The Facility has provided various waste characterization and waste approval documentation (Exhibits F, I, J, K, L, and N of the April 28, 2006 response letter) for hazardous waste and LIW generated the Facility. However, the provided characterizations are not adequate to ensure the appropriate characterization and final disposition of the generated waste materials.

Additionally, the Facility did not provide in the April 28, 2006 response letter or the May 15, 2006 follow-up letter, documentation on field pH monitoring of Tank 12 and Tank 12 SCS spill containment remediation that would confirm that LIW collected historically during the "caustic downturn" process or from LIW releases from Tank 12 into its associated SCS and transported off-site as LIW was not characteristically hazardous for corrosivity or otherwise a characteristically or listed hazardous waste. The Facility did not provide in their response letters, records of historical field pH measurements, and have indicated verbally that such records have not been maintained and do not exist for historical Tank 12 caustic downturn and SCS remediation, hazardous waste and LIW shipments sent off-site by the Facility.

Standard operating procedure S-01-59-10 (Exhibit B of the April 28, 2006 response letter, updated in the May 15, 2006 follow-up response letter) documents that the Facility has initiated recordkeeping of pH field screening that is reportedly being performed by the Facility prior to transport off-site of the spent caustic bath. The Facility is asserting within the April 28, 2006 response letter that the waste hauler is making the determination as to whether identified hazardous waste is managed as a hazardous waste under hazardous waste manifest or for contracted beneficial reuse. However, it is the Facility's responsibility to adequately characterize the waste stream and to ensure its appropriate final disposition.

Please provide, in response to this letter; a waste analysis plan (WAP) that encompasses provisions for updating the characterizations of the above mentioned waste streams (spent caustic process bath collected within Tank 12, wastewater and hydraulic oil accumulated within Tanks 43 and 44, filter cake generated from the Facility's zinc electro-galvanizing process, and filter cake generated from the Facility's alloy electro-galvanizing process). The submitted WAP must provide for the sampling of each of the aforementioned waste streams, and for the characterization and identification of all hazardous waste constituents within the identified waste streams.

Please provide this WAP for DEQ review and approval at least 30 days prior to the Facility's scheduled sampling event(s) that will support the Facility's characterization update activities. Analytical results generated from the completed sample events

should be submitted to the DEQ within 30 days of sample collection, with those results maintained on-site for DEQ review.

**Violations 2 and 5: Continued violation for allowing the release of hazardous waste and LIW, including used oil, into the SCS as part of the Facility's established standard operating procedures.**

Rule 299.9306(1)(e) & (f) and 299.9307(1): Part 121, Section 12113(1), (2) & (3): Rule 299.9810(3): Rule 299.9816(2): 40 CFR 279.22(d)(1 through 4): 40 CFR 265.194: 40 CFR 265.196: Standard operating procedure Tank 12 Secondary Containment Dike Level Management (May 15, 2006 follow-up response letter) documents that the Facility continues to allow up to 6 inches of accumulated liquids into the Tank 12 SCS. Standard operating procedure S-01-59-10 (Exhibit B of the April 28, 2006 response letter, updated in the May 15, 2006 follow-up response letter) does not document that releases of spent caustic liquids into the Tank 12 SCS during planned or otherwise uncontrolled discharge are a violation of the requirement for the waste area to be protected from weather, fire, physical damage & vandals and that the hazardous waste is accumulated so no hazardous waste or hazardous waste constituents can escape by gravity into the soil, directly or indirectly, into surface or groundwaters, or into drains or sewers and so that fugitive emissions are not in violation of part 55 of the act. 40 CFR 265.194 requires, in pertinent part, that the owner or operator must use appropriate controls and practices to prevent spills and overflows from tank or secondary containment systems, stating specifically that these controls must include at a minimum, spill prevention controls, overfill prevention controls, and that the owner or operator must comply with the requirements of 40 CFR 265.196 if a leak or spill occurs in the tank system, related to required response actions to leaks or spills and disposition of leaking or unfit-for-use tank systems.

Additionally, the Tank 12 dike level management standard operating procedure does not clearly denote that dike levels and recorded pH readings will be recorded on the accompanying Tank 12 and SCS monitoring spread sheet (May 15, 2006 follow-up response letter).

Please provide, in response to this letter, documentation as to changes that have been implemented, including standard operating procedures initiated or ceased that will ensure the aforementioned illicit discharges of hazardous waste liquids and LIW into the secondary containment structure associated with Tank 12 are discontinued. Also, please provide, in response to this letter, documentation of the remedial actions, repairs, reviews, certifications, etc., that will take place to ensure the integrity of Tank 12 and its associated secondary containment structure, so that the appropriate storage and containment of hazardous waste liquids and LIW, including used oil, can be performed in a manner that will ensure protection from releases of hazardous waste liquids and LIW being discharged into the soil, surface water or groundwater, drain or sewer, or air, as called for within Parts 111, 121, 31, and 55 of Act 451 and associated State, Federal and local regulations and requirements.

Additionally, Exhibit E of the April 28, 2006 response letter includes training documentation that would indicate that overflowing of Tank 12 into the Tank 12 SCS is an acceptable and standard operating procedure for the facility in that it states, specifically: "If the level [sic: of HCD Cleaner within Tank 12] is greater than 85 inches, we will overflow the tank." It is not clear from this narrative within the Exhibit E training documentation, that Tank 12 will be pumped out by tanker truck prior to, and in order to protect from, any potential overfill releases of spent caustic bath into the Tank 12 SCS. Please document, in response to this letter, that line operators, the QA laboratory, shift supervisor(s), and other appropriate personnel, understand the regulatory requirement that Tank 12 overflows not be allowed as a management method related to spent caustic process bath, hazardous waste and LIW management at the Facility.

**Violation 3: Continued violation for not notifying the DEQ and/or other agencies of releases of spent caustic bath from Tank 12.**

Rule 299.9306(1)(d): Part 121, Section 12111(1) and (2): The Facility indicated within the April 28, 2006 response letter that it does not view releases of hazardous waste and LIW into the Tank 12 SCS as requiring reporting to the DEQ or other agencies. A Federal (e.g.: Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended) reportable quantity of 1,000 pounds for sodium hydroxide has been established. As a release has been defined to mean: spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing; notification requirements have been identified for releases to the Tank 12 SCS above the reportable quantity of the Tank 12 contents to include: immediate to NRC, immediate or within 24 hours after discovery to the DEQ (RRD, WHMD, or PEAS), immediately to DLEG, Bureau of Construction Codes and Fire Safety and the local fire department. Additionally, a release of 2,800 gallons of hydraulic oil identified within the April 28, 2006 response letter, reported to have taken place at the Facility on January 5, 2006, would be required to be reported similarly, dependent on the nature and extent of the release incident.

Rule 299.9306(1)(d) requires that the generator comply with the requirements for owners or operators in 40 C.F.R. part 265, subparts C and D, and 40 C.F.R. §265.16 and 40 C.F.R. §268.7(a)(5), specifically noting that, if there is a fire, explosion, or other release of hazardous waste or hazardous waste constituents that could threaten human health or the environment, or if the generator has knowledge that a spill has reached surface water or groundwater, then the generator shall immediately notify the DEQ pollution emergency alerting system - telephone number 800-292-4706. The notification shall include all of the following information:

- (i) The name and telephone number of the person who is reporting the incident.
- (ii) The name, address, telephone number, and site identification number of the generator.
- (iii) The date, time, and type of incident.
- (iv) The name and quantity of the material or materials involved and released.
- (v) The extent of injuries, if any.

- (vi) The estimated quantity and disposition of recovered materials that resulted from the incident, if any.
- (vii) An assessment of actual or potential hazards to human health or the environment.
- (viii) The immediate response action taken.

Please provide, in response to this letter, standard operating procedures that will be put into place to ensure all future release incidents of hazardous waste liquids and LIW into the Tank 12 SCS will be reported to the appropriate State, Federal and local agencies, and that the Facility will maintain as part of their records a written report documenting incident and response actions taken, including any supporting analytical data.

**Violation 4: Facility not labeling Tank 12 with a "Used Oil" placard.**

Rule 299.9810(3): Rule 299.9816(2): 40 CFR 279.22(c)(1): The Facility indicated within the April 28, 2006 response letter that it does not want to add a "Used Oil" placard on Tank 12, to minimize confusion concerning hazardous waste and use oil regulatory requirements associated with Tank 12.

No additional response is necessary, however, the Facility is required to maintain records on site for DEQ review.

**The following additional violations have been identified, based on the Facility's response to the March 29, 2006 Letter of Warning, based on DEQ staff review of the April 28, 2006 and follow-up May 15, 2006 response letters:**

1. Rule 299.9306(1): 40 CFR 265.195: the Facility, as a LQG of hazardous waste accumulating hazardous waste in a hazardous waste tank, is required to inspect at least once each operating day, above ground portions of the tank system, if any, to detect corrosion or releases of waste. DEQ staff noted during the performed inspections that Tank 12 sits on a concrete slab. This construction is also referenced in the September 1997, Subpart J tank assessment report included within Exhibit A of the April 28, 2006 response letter. The construction of Tank 12 on a concrete slab disallows visual inspection of the tank bottom to be completed by Facility personnel. As such, the Facility is unable to meet the daily inspection requirements of 40 CFR 265.195. Please provide, in response to this 2<sup>nd</sup> Letter of Warning, changes in inspection procedures or modifications to the Tank 12 construction that will be implemented to ensure compliance of the Facility with the inspection requirements of 40 CFR 265.195.
2. Rule 299.9302: Rule 299.9307(1): 40 CFR 262.11: 40 CFR 262.40(c): 40 CFR 268.7(a)(5): the Facility, as a generator of hazardous waste and liquid industrial waste (LIW), is required to characterize that waste in accordance with the requirements of Part 111, Hazardous Waste Management, and rules promulgated under that part, and the requirements of 40 CFR 262, Federal Standards Applicable to Hazardous Waste Generators, and to maintain records of that characterization on site for a period of three (3) years. The Facility has not provided to the DEQ,



records of field pH or other measurements taken to confirm the characteristics (hazardous or non-hazardous) of spent caustic process bath discharged into the Tank 12 SCS and shipped off as LIW between the period of September 26, 2005 and January 5, 2006 (Exhibit C of the April 28, 2006 response letter). A total of 41,000 gallons of the discharged spent caustic process bath were reported to be sent off-site as a non-hazardous waste, under manifest to a final destination facility, with no documentation made available to confirm that the waste stream was indeed non-hazardous and not otherwise a characteristic or listed hazardous. Please provide, in response to this 2<sup>nd</sup> Letter of Warning, documentation or findings that may support the identified historical waste stream being appropriately managed as a LIW.

3. Rule 299.9306: 40 CFR 265.193: The Facility, as a LQG of hazardous waste accumulating hazardous waste in a hazardous waste tank, is required to ensure hazardous waste tanks include secondary containment that is designed, installed and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system. Exhibit A of the April 28, 2006 response letter includes a September 15, 1997 assessment report that documents Tank 12, at that time, to be compliant with 40 CFR Part 265, Subpart J requirements for hazardous waste tank systems. However, DEQ staff's recent review of the Tank 12 SCS did not find it to include adequate squirt protection for possible releases from Tank 12. Please provide, in response to this 2<sup>nd</sup> Letter of Warning, documentation as to squirt protection upgrades that will be made to the Tank 12 SCS, or other modifications that will be made to Tank 12 and its associated SCS to afford the appropriate protection of migration of wastes or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system.

Additionally, the Facility indicated within its April 28, 2006 response letter that the Tank 12 SCS was in the process of being relined, and that a contract had been awarded that included, among other line items, cutting out all loose and damaged areas of the floor, removing deteriorated concrete, and patching concrete (Exhibit D of the April 28, 2006 response letter). The April 28, 2006 response letter indicated that the relining activities were completed on April 22, 2006. Please provide, in response to this 2<sup>nd</sup> Letter of Warning, certification of the completed Tank 12 SCS repair and relining activities, including, as well, waste characterization documentation and manifests or bills-of-lading, as appropriate, specifically documenting the final disposition of demolition materials generated during this process.

4. Rule 299.9306(1)(c): 40 CFR 252.34(a)(3): The Facility, as a LQG of hazardous waste accumulating hazardous waste in a hazardous waste tank, is required to label or mark each tank with the words "Hazardous Waste." The Facility included within Exhibit A of their April 28, 2006 response letter, a 40 CFR 265 Subpart J tank assessment report that certified that Tank 12 "meets the requirements of the relevant state and federal regulations regarding upgraded existing hazardous waste storage tank systems." Please provide, in response to this 2<sup>nd</sup> Letter of Warning,



confirmation that Tank 12 has been labeled or marked with the words: "Hazardous Waste."

5. 40 CFR 265.194: The Facility, as a LQG of hazardous waste accumulating hazardous waste in a hazardous waste tank, is required to use appropriate controls and practices to prevent spills and overflows from the tank or secondary containment system, to include, at minimum, overfill prevention controls such as level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank. The April 28, 2006 response letter documents that Tank 12 was designed with high level alarms and overfill protection, and that the high level alarm has been repaired and most recently tested on April 16, 2006. Please forward, in response to this 2<sup>nd</sup> Letter of Warning, the period of time the high level alarms were not operational at the facility. Forward, as well, any documentation to support which other controls or inspections were put in place during the period of time that the high level alarms were not operational.

**The following additional clarifications are required from the Facility:**

**Beneficial Reuse Issue:** The Facility is indicating significant amounts of the hazardous waste are being sent off-site under bills-of-lading for beneficial reuse. Exhibit G includes a hazardous waste treatment, storage and disposal designated facility's January 12, 1998 notice to the DEQ that indicates they are accepting the Facility's spent sodium hydroxide solution for beneficial reuse. Exhibit F of the April 28, 2006 response letter includes a June 13, 2005 waste approval certification form that documents that sodium hydroxide and waster used to remove oil from rolled steel is being used by this designated facility as a substitute commercial cleaning product. Exhibit H of the April 28, 2006 response letter includes a spreadsheet indicating various volumes of Tank 12 spent caustic liquid waste were sent to this designated facility between February 2005 and March 2006. However, no bills-of-lading or other supporting documentation was provided in the April 28, 2006 response letter or the May 15, 2006 follow-up letter to support the Facility's assertion that the recorded amounts of spent caustic liquid waste was transported from Tank 12 to the identified designated facility during that time period, for the purpose of beneficial reuse.

Please provide, in response to this letter, contract documents, bills-of-lading and/or other supporting documentation to support the Facility's assertion that the shipments of hazardous waste and LIW from Tank 12 identified within Exhibit H, were transported off-site between February 2005 and March 2006 for beneficial reuse, and not as a hazardous waste or LIW.

**Resolution of Exhibit C with Exhibit M:** Exhibit C of the April 28, 2006 Facility response letter, includes a table of hazardous and non-hazardous waste shipments between September 26, 2005 and February 17, 2006. Exhibit M of that document includes a table identifying manifested shipments of non-hazardous waste liquids from the facility between March 2005 and May 2006, showing, also: approval numbers, the source, and the receiving TSDF. Exhibit C appears to not include all of the non-hazardous waste shipments between the dates noted, when reviewed with Exhibit M.

Exhibit M appears to be in conflict with the area of generation detailed in Exhibit C. In one instance, Exhibit M does not include a waste approval number (4/06/2005) and in another instance, Exhibit M documents a liquid waste shipment being sent to a receiving facility under another receiving facility's approval number (080805-0 shipped on 1/9/06).

Exhibit M identifies a hydraulic oil spill that resulted in 2,800 gallons of waste liquids being sent off-site to a receiving facility, with no indication that the amount released triggered a release reporting requirement. In addition, various waste characterization/approvals identified in Exhibit M were not provided in the Facility's response letters, including: 071205-0, 080805-0, K07502, 093002-0, FF05293, HF054693, and 12779.

Please provide, in response to this letter, further clarification to resolve the above noted discrepancies between the information included within Exhibits C and M.

**Resolution of Exhibit C with Exhibit H:** Exhibit H of the April 28, 2006 Facility response letter, includes a table of manifested hazardous waste (three shipments) and beneficial reuse shipments. The identified hazardous waste shipments (three shipments on two dates) for the period of time between April and October 2005 was not included within Exhibit C, along with the five (5) hazardous waste shipments identified within Exhibit C as having taken place between January [sic: November 2005] and February 2006.

Please provide, in response to this letter, further clarification to resolve the above noted discrepancies between the information included within Exhibits C and H.

**The following comments/issues identified in the March 29, 2006 Letter of Warning were responded to by the Facility in the April 28, 2006 response letter.**

**Comment/Issue A:** As a Large Quantity Generator (LQG) of hazardous waste, the Facility is required to fully establish that the spent caustic process bath, hazardous waste stream stored within Tank 12 is accumulated on site for 90 days or less or, alternatively, that the Facility is operating as a storage facility subject to the requirements of 40 CFR Parts 264 and 265 and the permit requirements of 40 CFR Part 270, unless the Facility has been granted an extension to the 90-day period. The Facility is asserting within the April 28, 2006 response letter that the flow-through of Tank 12 establishes that the "less than 90 day" retention time period is being met by the Facility, related to Hazardous Waste storage within Tank 12.

No additional response is necessary, however, the Facility is required to maintain records on site for DEQ review.

**Comment/Issue B:** The Facility is required to fully establish the final disposition of used oil generated by the Facility, including used oil generated from the spent caustic process bath generated by the Facility. The Facility is asserting within the April 28,

2006 response letter that used oil generated by the Facility, including used oil entrained within spent caustic process bath, is being recycled or otherwise handled appropriately. The Facility provided a spreadsheet within Exhibit M [sic: Exhibit N] of the April 28, 2006 response letter, which reportedly depicts all used oil transported off-site for recycling or other appropriate final disposition, for the period of time March 2005 through April 2006, and indicated the Facility maintains the generated waste manifests on site for DEQ review.

No additional response is necessary, however, the Facility is required to maintain records on site for DEQ review.

**Comment/Issue C:** At the time of inspection, it was determined that the Site Identification Verification form on file with our office had not been updated by the Facility to include the appropriate site contact personnel. The Facility is asserting within the April 28, 2006 response letter that the Facility has updated their Site ID form in conjunction with biennial reporting, and provided a partial copy of that form within Exhibit O of the April 28, 2006 response letter.

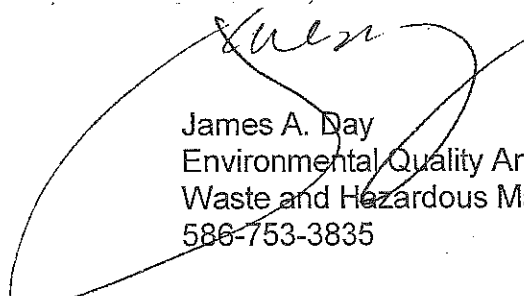
No additional response is necessary, however, the Facility is required to maintain records on site for DEQ review and make notifications and updates as appropriate.

The Facility must respond to the above violations and provide the requested clarifications noted in this letter. Please submit documentation to this office regarding those actions taken to address the violations and provide the necessary clarifications **by June 30, 2006**. The DEQ will evaluate that response, determine the Facility's compliance status, and notify you of this determination.

This letter of warning does not preclude, nor limit, the DEQ's ability to initiate any other enforcement action, under state or federal law, as deemed appropriate.

If you have any questions, feel free to contact me.

Sincerely,



James A. Day  
Environmental Quality Analyst  
Waste and Hazardous Materials Division  
586-753-3835

Enclosures

cc: ~~Mr. Duncan Campbell, USEPA~~  
Mr. Lawrence AuBuchon, DEQ



Duncan  
Campbell/R5/USEPA/US  
07/12/2006 09:47 AM

To: Michael McClary  
cc  
bcc

Subject: Double Eagle (DESCC) - Summary

Mike -

Double Eagle is located in Michigan.

Owner: Severstal North American and U.S. Steel  
Legal Representation: Scott Dismukes and Robert Casselberry of Eckert Seamans Cherin & Mellott, LLC  
(Pittsburg, PA)

Facility -- Constructed late 1984 as a joint venture between Rouge Steel and U.S. Steel.  
First notification --- May 16, 1985 as LQG

EPA Led inspection --- February 27, 2006

MDEQ issued:

Letter of Warning / Information Request ----- March 29, 2006 Double Eagle response April 23th  
Letter of Warning / Information Request ----- May 31, 2006 Double Eagle response June 30th

Evaluation:

1) Photos, manifest, and statements from employees and contractor and admissions from both of DESC's responses that tank holding caustic has persistently overflowed into secondary containment due to faulty equipment or electrical signal relayed from the tank to an electronic control board;



DESCC 001.ppt

2) Photos, statement from operator, waste analysis and manifests along with admissions from both of DESC's responses that precipitate from alloy plating bath is not being managed in tank or container.



DESCC 011.ppt

Issues:

1) DESC --- claims the contents of the tank are sent off-site for beneficial reuse. Under normal circumstances the tank is not a regulated unit - its doubtful that the tank would be considered part of the coil washing production process, but that seems immaterial when everything is working according to plan. DESC also claims the tank is operated within its design capacity because the secondary containment can hold the overflow. DESC claims that waste determination for the overflow once the tanker trailer pulls up to vacuum the spilled material. IF, we say the tank is a regulated unit as a result of releases, then we need to decide if the point of generation is a result of the material overflowing from the tank or upstream --- in the building (akin to the auto assembly plants) when it is pumped from the "closed-loop"



process. DESC 009.ppt

1a) DESC - stated that sometimes the load of caustic is rejected when it arrives at the TSD. In these instances, when does the material become a hazardous waste? In the tank system? In transit or upon

Not discussed was the skimming oil from galvanizing solutions  
 Sumps used to collect oil is from steel coil coating

rejection by the TSD? In either instance, whether it is received for beneficial use or accepted and off-loaded as a hazardous waste the money flows from DESCC to the TSD. In other words, to DESCC its a cost regardless of how it ultimately handled at the other end.

DOOZ/  
 DW7

2) DESCC has from time to time removed precipitate that has built up in the bottom of two large recirculation tanks. I was told that the tanks are part of a closed-loop production process. When they removed this precipitate they manifested it off-site as hazardous for chromium. They told me that the chromium doesn't come from the plating bath solution but from reaction of the plating baths on stainless steel equipment. The equipment wears as a result of coming in contact with the acid plating bath. This results in a reaction and the release chromium. As it was explained to me in a phone conversation after the inspection, the impurities which form during the plating process are siphoned off from the plating baths and diverted to a filter press (Door 10). This wastestream has been evaluated and determined to not be hazardous for chromium. The individual plating baths require periodic cleaning. A high pressure water hose flushes cleans the bath. Water dilutes the acid which elevates the pH of the material being flushed. Chromium moves from a valence of Cr+6 or Cr+3 to elemental chromium CR 0 and precipitates along with other alloy ingredients. The precipitate is washed from the six floor down to the basement (Snake Pit). I



observed lots of (red) precipitate. DESCC 015.ppt

I wash told that this precipitate which is being washed toward the four very large tanks is the same material which periodically gets removed from the tanks as a hazardous waste. As it was being washed toward these tanks it is in no-man's land. That it is, it is neither being managed in a tank nor a container.

See Dynalco  
 Waste # 1070353  
 Appraisal  
 11 Sump  
 Waste

2- 280,000 gal tanks

→ Recirculating

4 Waste acid  
 Sumps → cascade

↓  
 Waste water  
 goes to  
 WWTP

→ Bleeding  
 goes  
 directly to  
 Sumps

Alloy  
 +  
 Zinc  
 plating  
 solutions  
 → pH 3-4





James Day  
<dayja@michigan.gov>  
06/12/2006 08:14 AM

To  
Subject Double Eagle Hand Drawn Sketch

The sketch was drawn by Mr. Marc Swientoniowski during the March 7, 2006 follow-up visit, in Mr. McBee's trailer. Mr. McBee was present and Mr. Michael Busse of this office was present. I had asked for clarification of the process .... and Mr. Swientoniowski offered to sketch it out.

I am hesitant to make any definitive statements as to what the diagram depicts, especially as it relates to the actual process, without reviewing the file further, including any blue line, as-built drawings in file or that the facility can provide, and conferring with plant personnel, possibly during a follow-up visit to the facility. I do understand that Tanks 43 and 44 are connected, per previous conversations with Mr. McBee.

Again, any additional clarification I may be able to provide would require me to confer with the facility. At this point, I would like to hold off contacting the facility back until they have had an opportunity to review/respond to the issued second letter of warning, or until they contact me back.

Thank you and contact me with questions.

>>> <Campbell.Duncan@epamail.epa.gov> 06/09/06 1:27 PM >>>  
Jim-

Someone provided you with a hand drawn sketch. No date. No title.

I'm calling it the High Current Density [HCD] Electrolytic Cleaning Line. Did you hear it called something else?

I see what looks like two vats containing Q613 and Q618. I'm assuming they are different? Are these surfactants or are these caustic cleaners?

The sketch looks deliberate in showing a segregated path for each cleaner. The sketch shows a line from Q613 - the first cleaner directly to Tank 43/44. I don't see a corresponding line from Q618 to Tank 43/44. Was this an oversight?

Also, is Tank 43/44 one tank or two??????????

Was there any significance to the brushes being positioned directly over the first cleaner and the spray being positioned over the second cleaner?

I see a re-circ loop that dumps the second cleaner [Q618] into the first cleaner --- possibly as "make-up." I'm assuming that Q618 comes back to the vat cleaner than the first cleaner would. I'm basing my assumption on the probability that Q618 gets contaminated slower than Q613. And for this reason it can be used as "make-up" for the first clean.

Also, I see a little box labeled "c" for both the 1st and 2nd cleaner loops. Does this "c" represent some form of filtration device that skims oil off the top? Is the "ows" located at the wastewater treatment facility? Or is it located in the Terminal Building?

And finally, I don't understand how the trench interacts with the recirculation loops depicted for 1st and 2nd cleaner?

I figured the trench was ancillary to the 10,000 gallon solution sump we saw next to the office. Maybe what I am calling the solution sump is the same as what the sketch calls either the 1st or 2nd cleaner tanks?



JENNIFER M. GRANHOLM  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
SOUTHEAST MICHIGAN DISTRICT OFFICE



STEVEN E. CHESTER  
DIRECTOR

May 31, 2006

CERTIFIED MAIL

Mr. Thomas J. Kevin, Plant Manager  
Double Eagle Steel Coating Company  
3000 Miller Road  
Dearborn, Michigan 48120

Dear Mr. Kevin:

SUBJECT: Double Eagle Steel Coating Company, Dearborn, Michigan  
MID981092190

This is to inform you that, based on inspections performed on February 27, 2006 and March 7, 2006, of the above-referenced facility (hereafter Facility), conducted by staff of the Department of Environmental Quality (DEQ), Waste and Hazardous Materials Division (WHMD), identified violations of Part 111, Hazardous waste Management (Part 111), and Part 121, Liquid Industrial Wastes (Part 121), of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA); Subtitle C of the federal Resource Conservation and Recovery Act of 1976, as amended, remain unresolved. The Facility was notified of these violations in a letter dated March 29, 2006. The Facility responded to the March 29, 2006, Letter of Warning, in an initial April 28, 2006 response letter and in a May 15, 2006 follow-up letter.

As a result of the completed inspections and review of the Facility responses, staff of the DEQ has determined that the above Facility is still in violation. Specifically, the Facility has not resolved the following violations cited in the March 29, 2006, Letter of Warning:

**Violation 1: Continued violation for not providing adequate updated characterizations of the following waste streams: 1) spent caustic process bath stored within Tank 12 and historically released from Tank 12 into the secondary containment structure (SCS) associated with Tank 12; 2) wastewater and hydraulic oil accumulated within Tanks 43 and 44; 3) filter cake containing free-liquids that is generated from the Facility's zinc electro-galvanizing process, and 4) filter cake containing free-liquids that is generated from the Facility's alloy electro-galvanizing process.**

Rule 299.9302: Rule 299.9307(1): 40 CFR 262.11, 40(c): 40 CFR 268.7(a)(6) & (8): the Facility, as a generator of hazardous waste and liquid industrial waste (LIW), is required to characterize that waste in accordance with the requirements of Part 111, Hazardous Waste Management, and rules promulgated under that part, and the requirements of 40 CFR 262, Federal Standards Applicable to Hazardous Waste Generators, and to maintain records of that characterization on site for a period of three (3) years. The Facility has provided various waste characterization and waste approval documentation (Exhibits F, I, J, K, L, and N of the April 28, 2006 response letter) for hazardous waste and LIW generated the Facility. However, the provided characterizations are not adequate to ensure the appropriate characterization and final disposition of the generated waste materials.

Additionally, the Facility did not provide in the April 28, 2006 response letter or the May 15, 2006 follow-up letter, documentation on field pH monitoring of Tank 12 and Tank 12 SCS spill containment remediation that would confirm that LIW collected historically during the "caustic downturn" process or from LIW releases from Tank 12 into its associated SCS and transported off-site as LIW was not characteristically hazardous for corrosivity or otherwise a characteristically or listed hazardous waste. The Facility did not provide in their response letters, records of historical field pH measurements, and have indicated verbally that such records have not been maintained and do not exist for historical Tank 12 caustic downturn and SCS remediation, hazardous waste and LIW shipments sent off-site by the Facility.

Standard operating procedure S-01-59-10 (Exhibit B of the April 28, 2006 response letter, updated in the May 15, 2006 follow-up response letter) documents that the Facility has initiated recordkeeping of pH field screening that is reportedly being performed by the Facility prior to transport off-site of the spent caustic bath. The Facility is asserting within the April 28, 2006 response letter that the waste hauler is making the determination as to whether identified hazardous waste is managed as a hazardous waste under hazardous waste manifest or for contracted beneficial reuse. However, it is the Facility's responsibility to adequately characterize the waste stream and to ensure its appropriate final disposition.

Please provide, in response to this letter, a waste analysis plan (WAP) that encompasses provisions for updating the characterizations of the above mentioned waste streams (spent caustic process bath collected within Tank 12, wastewater and hydraulic oil accumulated within Tanks 43 and 44, filter cake generated from the Facility's zinc electro-galvanizing process, and filter cake generated from the Facility's alloy electro-galvanizing process). The submitted WAP must provide for the sampling of each of the aforementioned waste streams, and for the characterization and identification of all hazardous waste constituents within the identified waste streams.

Please provide this WAP for DEQ review and approval at least 30 days prior to the Facility's scheduled sampling event(s) that will support the Facility's characterization update activities. Analytical results generated from the completed sample events

should be submitted to the DEQ within 30 days of sample collection, with those results maintained on-site for DEQ review.

**Violations 2 and 5: Continued violation for allowing the release of hazardous waste and LIW, including used oil, into the SCS as part of the Facility's established standard operating procedures.**

Rule 299.9306(1)(e) & (f) and 299.9307(1): Part 121, Section 12113(1), (2) & (3): Rule 299.9810(3): Rule 299.9816(2): 40 CFR 279.22(d)(1 through 4): 40 CFR 265.194: 40 CFR 265.196: Standard operating procedure Tank 12 Secondary Containment Dike Level Management (May 15, 2006 follow-up response letter) documents that the Facility continues to allow up to 6 inches of accumulated liquids into the Tank 12 SCS. Standard operating procedure S-01-59-10 (Exhibit B of the April 28, 2006 response letter, updated in the May 15, 2006 follow-up response letter) does not document that releases of spent caustic liquids into the Tank 12 SCS during planned or otherwise uncontrolled discharge are a violation of the requirement for the waste area to be protected from weather, fire, physical damage & vandals and that the hazardous waste is accumulated so no hazardous waste or hazardous waste constituents can escape by gravity into the soil, directly or indirectly, into surface or groundwaters, or into drains or sewers and so that fugitive emissions are not in violation of part 55 of the act. 40 CFR 265.194 requires, in pertinent part, that the owner or operator must use appropriate controls and practices to prevent spills and overflows from tank or secondary containment systems, stating specifically that these controls must include at a minimum, spill prevention controls, overfill prevention controls, and that the owner or operator must comply with the requirements of 40 CFR 265.196 if a leak or spill occurs in the tank system, related to required response actions to leaks or spills and disposition of leaking or unfit-for-use tank systems.

Additionally, the Tank 12 dike level management standard operating procedure does not clearly denote that dike levels and recorded pH readings will be recorded on the accompanying Tank 12 and SCS monitoring spread sheet (May 15, 2006 follow-up response letter).

Please provide, in response to this letter, documentation as to changes that have been implemented, including standard operating procedures initiated or ceased that will ensure the aforementioned illicit discharges of hazardous waste liquids and LIW into the secondary containment structure associated with Tank 12 are discontinued. Also, please provide, in response to this letter, documentation of the remedial actions, repairs, reviews, certifications, etc., that will take place to ensure the integrity of Tank 12 and its associated secondary containment structure, so that the appropriate storage and containment of hazardous waste liquids and LIW, including used oil, can be performed in a manner that will ensure protection from releases of hazardous waste liquids and LIW being discharged into the soil, surface water or groundwater, drain or sewer, or air, as called for within Parts 111, 121, 31, and 55 of Act 451 and associated State, Federal and local regulations and requirements.

Additionally, Exhibit E of the April 28, 2006 response letter includes training documentation that would indicate that overflowing of Tank 12 into the Tank 12 SCS is an acceptable and standard operating procedure for the facility in that it states, specifically: "If the level [sic: of HCD Cleaner within Tank 12] is greater than 85 inches, we will overflow the tank." It is not clear from this narrative within the Exhibit E training documentation, that Tank 12 will be pumped out by tanker truck prior to, and in order to protect from, any potential overfill releases of spent caustic bath into the Tank 12 SCS. Please document, in response to this letter, that line operators, the QA laboratory, shift supervisor(s), and other appropriate personnel, understand the regulatory requirement that Tank 12 overflows not be allowed as a management method related to spent caustic process bath, hazardous waste and LIW management at the Facility.

**Violation 3: Continued violation for not notifying the DEQ and/or other agencies of releases of spent caustic bath from Tank 12.**

Rule 299.9306(1)(d): Part 121, Section 12111(1) and (2): The Facility indicated within the April 28, 2006 response letter that it does not view releases of hazardous waste and LIW into the Tank 12 SCS as requiring reporting to the DEQ or other agencies. A Federal (e.g.: Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended) reportable quantity of 1,000 pounds for sodium hydroxide has been established. As a release has been defined to mean: spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing; notification requirements have been identified for releases to the Tank 12 SCS above the reportable quantity of the Tank 12 contents to include: immediate to NRC, immediate or within 24 hours after discovery to the DEQ (RRD, WHMD, or PEAS), immediately to DLEG, Bureau of Construction Codes and Fire Safety and the local fire department. Additionally, a release of 2,800 gallons of hydraulic oil identified within the April 28, 2006 response letter, reported to have taken place at the Facility on January 5, 2006, would be required to be reported similarly, dependent on the nature and extent of the release incident.

Rule 299.9306(1)(d) requires that the generator comply with the requirements for owners or operators in 40 C.F.R. part 265, subparts C and D, and 40 C.F.R. §265.16 and 40 C.F.R. §268.7(a)(5), specifically noting that, if there is a fire, explosion, or other release of hazardous waste or hazardous waste constituents that could threaten human health or the environment, or if the generator has knowledge that a spill has reached surface water or groundwater, then the generator shall immediately notify the DEQ pollution emergency alerting system - telephone number 800-292-4706. The notification shall include all of the following information:

- (i) The name and telephone number of the person who is reporting the incident.
- (ii) The name, address, telephone number, and site identification number of the generator.
- (iii) The date, time, and type of incident.
- (iv) The name and quantity of the material or materials involved and released.
- (v) The extent of injuries, if any.



- (vi) The estimated quantity and disposition of recovered materials that resulted from the incident, if any.
- (vii) An assessment of actual or potential hazards to human health or the environment.
- (viii) The immediate response action taken.

Please provide, in response to this letter, standard operating procedures that will be put into place to ensure all future release incidents of hazardous waste liquids and LIW into the Tank 12 SCS will be reported to the appropriate State, Federal and local agencies, and that the Facility will maintain as part of their records a written report documenting incident and response actions taken, including any supporting analytical data.

**Violation 4: Facility not labeling Tank 12 with a "Used Oil" placard.**

Rule 299.9810(3): Rule 299.9816(2): 40 CFR 279.22(c)(1): The Facility indicated within the April 28, 2006 response letter that it does not want to add a "Used Oil" placard on Tank 12, to minimize confusion concerning hazardous waste and use oil regulatory requirements associated with Tank 12.

No additional response is necessary, however, the Facility is required to maintain records on site for DEQ review.

**The following additional violations have been identified, based on the Facility's response to the March 29, 2006 Letter of Warning, based on DEQ staff review of the April 28, 2006 and follow-up May 15, 2006 response letters:**

1. Rule 299.9306(1): 40 CFR 265.195: the Facility, as a LQG of hazardous waste accumulating hazardous waste in a hazardous waste tank, is required to inspect at least once each operating day, above ground portions of the tank system, if any, to detect corrosion or releases of waste. DEQ staff noted during the performed inspections that Tank 12 sits on a concrete slab. This construction is also referenced in the September 1997, Subpart J tank assessment report included within Exhibit A of the April 28, 2006 response letter. The construction of Tank 12 on a concrete slab disallows visual inspection of the tank bottom to be completed by Facility personnel. As such, the Facility is unable to meet the daily inspection requirements of 40 CFR 265.195. Please provide, in response to this 2<sup>nd</sup> Letter of Warning, changes in inspection procedures or modifications to the Tank 12 construction that will be implemented to ensure compliance of the Facility with the inspection requirements of 40 CFR 265.195.
2. Rule 299.9302: Rule 299.9307(1): 40 CFR 262.11: 40 CFR 262.40(c): 40 CFR 268.7(a)(5): the Facility, as a generator of hazardous waste and liquid industrial waste (LIW), is required to characterize that waste in accordance with the requirements of Part 111, Hazardous Waste Management, and rules promulgated under that part, and the requirements of 40 CFR 262, Federal Standards Applicable to Hazardous Waste Generators, and to maintain records of that characterization on site for a period of three (3) years. The Facility has not provided to the DEQ,

records of field pH or other measurements taken to confirm the characteristics (hazardous or non-hazardous) of spent caustic process bath discharged into the Tank 12 SCS and shipped off as LIW between the period of September 26, 2005 and January 5, 2006 (Exhibit C of the April 28, 2006 response letter). A total of 41,000 gallons of the discharged spent caustic process bath were reported to be sent off-site as a non-hazardous waste, under manifest to a final destination facility, with no documentation made available to confirm that the waste stream was indeed non-hazardous and not otherwise a characteristic or listed hazardous. Please provide, in response to this 2<sup>nd</sup> Letter of Warning, documentation or findings that may support the identified historical waste stream being appropriately managed as a LIW.

3. Rule 299.9306: 40 CFR 265.193: The Facility, as a LQG of hazardous waste accumulating hazardous waste in a hazardous waste tank, is required to ensure hazardous waste tanks include secondary containment that is designed, installed and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system. Exhibit A of the April 28, 2006 response letter includes a September 15, 1997 assessment report that documents Tank 12, at that time, to be compliant with 40 CFR Part 265, Subpart J requirements for hazardous waste tank systems. However, DEQ staff's recent review of the Tank 12 SCS did not find it to include adequate squirt protection for possible releases from Tank 12. Please provide, in response to this 2<sup>nd</sup> Letter of Warning, documentation as to squirt protection upgrades that will be made to the Tank 12 SCS, or other modifications that will be made to Tank 12 and its associated SCS to afford the appropriate protection of migration of wastes or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system.

Additionally, the Facility indicated within its April 28, 2006 response letter that the Tank 12 SCS was in the process of being relined, and that a contract had been awarded that included, among other line items, cutting out all loose and damaged areas of the floor, removing deteriorated concrete, and patching concrete (Exhibit D of the April 28, 2006 response letter). The April 28, 2006 response letter indicated that the relining activities were completed on April 22, 2006. Please provide, in response to this 2<sup>nd</sup> Letter of Warning, certification of the completed Tank 12 SCS repair and relining activities, including, as well, waste characterization documentation and manifests or bills-of-lading, as appropriate, specifically documenting the final disposition of demolition materials generated during this process.

4. Rule 299.9306(1)(c): 40 CFR 252.34(a)(3): The Facility, as a LQG of hazardous waste accumulating hazardous waste in a hazardous waste tank, is required to label or mark each tank with the words "Hazardous Waste." The Facility included within Exhibit A of their April 28, 2006 response letter, a 40 CFR 265 Subpart J tank assessment report that certified that Tank 12 "meets the requirements of the relevant state and federal regulations regarding upgraded existing hazardous waste storage tank systems." Please provide, in response to this 2<sup>nd</sup> Letter of Warning,

confirmation that Tank 12 has been labeled or marked with the words: "Hazardous Waste."

5. 40 CFR 265.194: The Facility, as a LQG of hazardous waste accumulating hazardous waste in a hazardous waste tank, is required to use appropriate controls and practices to prevent spills and overflows from the tank or secondary containment system, to include, at minimum, overfill prevention controls such as level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank. The April 28, 2006 response letter documents that Tank 12 was designed with high level alarms and overfill protection, and that the high level alarm has been repaired and most recently tested on April 16, 2006. Please forward, in response to this 2<sup>nd</sup> Letter of Warning, the period of time the high level alarms were not operational at the facility. Forward, as well, any documentation to support which other controls or inspections were put in place during the period of time that the high level alarms were not operational.

**The following additional clarifications are required from the Facility:**

**Beneficial Reuse Issue:** The Facility is indicating significant amounts of the hazardous waste are being sent off-site under bills-of-lading for beneficial reuse. Exhibit G includes a hazardous waste treatment, storage and disposal designated facility's January 12, 1998 notice to the DEQ that indicates they are accepting the Facility's spent sodium hydroxide solution for beneficial reuse. Exhibit F of the April 28, 2006 response letter includes a June 13, 2005 waste approval certification form that documents that sodium hydroxide and waster used to remove oil from rolled steel is being used by this designated facility as a substitute commercial cleaning product. Exhibit H of the April 28, 2006 response letter includes a spreadsheet indicating various volumes of Tank 12 spent caustic liquid waste were sent to this designated facility between February 2005 and March 2006. However, no bills-of-lading or other supporting documentation was provided in the April 28, 2006 response letter or the May 15, 2006 follow-up letter to support the Facility's assertion that the recorded amounts of spent caustic liquid waste was transported from Tank 12 to the identified designated facility during that time period, for the purpose of beneficial reuse.

Please provide, in response to this letter, contract documents, bills-of-lading and/or other supporting documentation to support the Facility's assertion that the shipments of hazardous waste and LIW from Tank 12 identified within Exhibit H, were transported off-site between February 2005 and March 2006 for beneficial reuse, and not as a hazardous waste or LIW.

**Resolution of Exhibit C with Exhibit M:** Exhibit C of the April 28, 2006 Facility response letter, includes a table of hazardous and non-hazardous waste shipments between September 26, 2005 and February 17, 2006. Exhibit M of that document includes a table identifying manifested shipments of non-hazardous waste liquids from the facility between March 2005 and May 2006, showing, also: approval numbers, the source, and the receiving TSDF. Exhibit C appears to not include all of the non-hazardous waste shipments between the dates noted, when reviewed with Exhibit M.

Exhibit M appears to be in conflict with the area of generation detailed in Exhibit C. In one instance, Exhibit M does not include a waste approval number (4/06/2005) and in another instance, Exhibit M documents a liquid waste shipment being sent to a receiving facility under another receiving facility's approval number (080805-0 shipped on 1/9/06).

Exhibit M identifies a hydraulic oil spill that resulted in 2,800 gallons of waste liquids being sent off-site to a receiving facility, with no indication that the amount released triggered a release reporting requirement. In addition, various waste characterization/approvals identified in Exhibit M were not provided in the Facility's response letters, including: 071205-0, 080805-0, K07502, 093002-0, FF05293, HF054693, and 12779.

Please provide, in response to this letter, further clarification to resolve the above noted discrepancies between the information included within Exhibits C and M.

**Resolution of Exhibit C with Exhibit H:** Exhibit H of the April 28, 2006 Facility response letter, includes a table of manifested hazardous waste (three shipments) and beneficial reuse shipments. The identified hazardous waste shipments (three shipments on two dates) for the period of time between April and October 2005 was not included within Exhibit C, along with the five (5) hazardous waste shipments identified within Exhibit C as having taken place between January [sic: November 2005] and February 2006.

Please provide, in response to this letter, further clarification to resolve the above noted discrepancies between the information included within Exhibits C and H.

**The following comments/issues identified in the March 29, 2006 Letter of Warning were responded to by the Facility in the April 28, 2006 response letter.**

**Comment/Issue A:** As a Large Quantity Generator (LQG) of hazardous waste, the Facility is required to fully establish that the spent caustic process bath, hazardous waste stream stored within Tank 12 is accumulated on site for 90 days or less or, alternatively, that the Facility is operating as a storage facility subject to the requirements of 40 CFR Parts 264 and 265 and the permit requirements of 40 CFR Part 270, unless the Facility has been granted an extension to the 90-day period. The Facility is asserting within the April 28, 2006 response letter that the flow-through of Tank 12 establishes that the "less than 90 day" retention time period is being met by the Facility, related to Hazardous Waste storage within Tank 12.

No additional response is necessary, however, the Facility is required to maintain records on site for DEQ review.

**Comment/Issue B:** The Facility is required to fully establish the final disposition of used oil generated by the Facility, including used oil generated from the spent caustic process bath generated by the Facility. The Facility is asserting within the April 28,

2006 response letter that used oil generated by the Facility, including used oil entrained within spent caustic process bath, is being recycled or otherwise handled appropriately. The Facility provided a spreadsheet within Exhibit M [sic: Exhibit N] of the April 28, 2006 response letter, which reportedly depicts all used oil transported off-site for recycling or other appropriate final disposition, for the period of time March 2005 through April 2006, and indicated the Facility maintains the generated waste manifests on site for DEQ review.

No additional response is necessary, however, the Facility is required to maintain records on site for DEQ review.

**Comment/Issue C:** At the time of inspection, it was determined that the Site Identification Verification form on file with our office had not been updated by the Facility to include the appropriate site contact personnel. The Facility is asserting within the April 28, 2006 response letter that the Facility has updated their Site ID form in conjunction with biennial reporting, and provided a partial copy of that form within Exhibit O of the April 28, 2006 response letter.

No additional response is necessary, however, the Facility is required to maintain records on site for DEQ review and make notifications and updates as appropriate.

The Facility must respond to the above violations and provide the requested clarifications noted in this letter. Please submit documentation to this office regarding those actions taken to address the violations and provide the necessary clarifications **by June 30, 2006**. The DEQ will evaluate that response, determine the Facility's compliance status, and notify you of this determination.

This letter of warning does not preclude, nor limit, the DEQ's ability to initiate any other enforcement action, under state or federal law, as deemed appropriate.

If you have any questions, feel free to contact me.

Sincerely,



James A. Day  
Environmental Quality Analyst  
Waste and Hazardous Materials Division  
586-753-3835

Enclosures

cc: Mr. Duncan Campbell, USEPA  
Mr. Lawrence AuBuchon, DEQ





Lawrence AuBuchon  
<aubuchol@michigan.gov>  
05/10/2006 07:06 AM

To  
Subject Re: Double Eagle response

If I am understanding the discussion we need to treat the tank as a waste tank. If 100% is managed as effective substitute then fine, but it is not. This tank is fully regulated with all the assorted bells and whistles of a HW tank. If what they remove can be sent as an effective substitute then it would not be counted as a HW shipment and be a part of their waste minimization. Entering the truck is not the point of regulation. If you need me to comment on the second question I would need a little more information.

>>> James Day 05/04/06 1:30 PM >>>

I will have to review your questions below with my review of the Company's response. Again, I should be able to get back to you next week or so. Larry may want to be a part of our discussions/transmittals.

I skimmed through the Company's response but have not reviewed the letter and attachments in detail.

Just for clarification, the Company issued the letter initially without attachments. A follow-up copy of that letter was forwarded by an attorney out of PA, with approximately 4 inches of documentation attached. Let me know if you did not receive the follow-up letter with attachments.

>>> <Campbell.Duncan@epamail.epa.gov> 05/04/06 1:16 PM >>>

Question #1 ---- Is Larry okay with the ad hoc action of making a waste determination. By that I mean, the decision to call it a waste is deferred until the transport truck shows up. If this is agreeable with MDEQ I'll need some help applying this to the point of generation for those times when Dynecol doesn't have the room or interest to take it as a beneficial reuse. This may necessitate physically inspecting Dynecol to ascertain whether all the shipments are used in the manner of the agreement. Years ago, I heard through Jeanette, that as a practice Dynecol off-loads pH adjustment shipments into a permitted Hazardous Waste tank -- when either the wastewater treatment facility didn't have capacity or they had a need to treat a corrosive hazardous waste. I'm looking for MDEQ insights in tracking this activity.

Question # 2 --- The Door #10 material in the roll-off box. Double Eagle makes a big point that this is not part of the wastewater treatment system. Other than skirting a listing for F006, what is the significance of this?

I may have more, but off the top of my head I can't recall specifics. I'm prepared for this to be grueling. By that, I mean even getting to a point where we can assess if there are violations and the associated risk of bringing an action.

Larry AuBuchon  
District Supervisor  
Waste and Hazardous Materials Division  
Michigan Department of Environmental Quality  
Southeast Michigan District

27700 Donald Court  
Warren, Michigan 48092-2793

*Dynecol*  
*MID 074 257 565*



Phone: 586-753-3840  
Pager: 734-509-0028  
Fax: 586-753-3831

E-Mail: [aubuchol@michigan.gov](mailto:aubuchol@michigan.gov)



3000 Miller Road  
Dearborn, Michigan 48120  
Telephone (313) 203-9800

April 28, 2006

*via Certified Mail  
Return Receipt Requested*

James A. Day  
Environmental Quality Analyst  
Waste and Hazardous Materials Division  
Michigan Department of Environmental Quality  
South East Michigan District Office  
27700 Donald Court  
Warren, MI 48092-2793

WORKING  
COPY

**Re: March 29, 2006 Letter of Warning to Double Eagle Steel Coating Company:  
MID981092190**

Dear Mr. Day:

With this letter, Double Eagle Steel Coating Company ("DESCC") responds to your March 29, 2006 Letter of Warning. DESCSC understands that your March 29 letter was based on facility inspections conducted by both the Michigan Department of Environmental Quality ("MDEQ") and the United States Environmental Protection Agency ("U.S. EPA") on February 27, 2006 and a follow up MDEQ inspection conducted on March 7, 2006. Your March 29 letter directed that we provide our response by April 28, 2006. DESCSC requested an extension of time to respond to your March 29 letter given the end of March departure of the facility's environmental engineer, Chris McBee, and the volume of information requested by your letter. To our surprise, the MDEQ denied our request. Accordingly, under these staffing circumstances and the limited time available to respond to the lengthy and detailed request, DESCSC is responding to your March 29, 2006 letter to the best of our ability.

Our review of your March 29 letter suggests you are focusing on three primary issues, with a number of subparts. As we understand it, the three primary issues are:

- 1) Ensuring the protection of the environment from releases of characteristic hazardous waste liquids and liquid industrial waste;
- 2) Providing notification to the MDEQ of "release incidents" and maintaining written documentation of any incidents and response actions taken; and
- 3) Ensuring DESCSC has updated characterizations of its liquid industrial waste and hazardous waste that are of sufficient scope and frequency to ensure adequate characterization and management of these materials.



We also understand that you are inquiring with respect to several issues associated with used oil, final disposition of used oil, Tank 12 waste accumulation time and DESCC completing an updated Site Identification Verification Form. We are responding to the issues raised in your March 29 letter in the order described immediately above.

#### Storage Tank and Secondary Containment System Integrity

The first issue noted above appears to be a concern whether the integrity of Tank 12 and secondary containment "system" is sufficient to prevent a release of hazardous waste or liquid industrial waste to the environment. In this regard, the September 15, 1997 report by Chester Engineers, authored by Brian Alexander, P.E., CHMM (the "Chester Report"; see Exhibit A), certified Tank 12 and its secondary containment "system" as meeting the construction and compatibility requirements for tank systems containing or managing D002 waste sufficient to safeguard against a release of material to the environment. Since the Chester Report, visual external inspections have not revealed signs of shifting or cracking, and DESCC has had no reason to believe the Tank 12 system has not continued to be effective for the storage and containment of a D002 waste stream.

The liquid material periodically contained within the Tank 12 secondary containment is the result of periodic overflows of Tank 12, and not the result of a physical break or a malfunction that would require repair. Tank 12 is inspected on a daily basis. DESCC is in the process of reviewing its tank inspection checklist to enhance the recordkeeping of the daily inspections. A copy of the checklist will be submitted to supplement this letter, by May 15, 2006. Additionally, Tank 12 sits on a four (4) foot high concrete pad above the secondary containment area, and any leaks from Tank 12 would be visible on the pad; there is no such indication of any leaks from Tank 12.

The secondary containment is also inspected on a daily basis. Removal of liquid from the secondary containment is managed according to best management practices based on the judgment of the operator, with consideration given to factors such as the level of liquid, weather conditions and the availability of vacuum truck services. DESCC's operating practice S-01-59-10 Holding Tank 12 calls for the containment area to allow sufficient room for a release from Tank 12, should such occur. See Exhibit B. A list of waste shipments of liquid from the secondary containment area is attached as Exhibit C.

In response to the concerns expressed by MDEQ, DESCC is in the process of revising its SOP for removal of liquid from the containment area. DESCC anticipates that the revised SOP will require daily monitoring of the liquid level, and removal of the liquid as soon as reasonably practicable any time there is caustic in the containment area or the depth of the liquid in the containment area exceeds six (6) inches. This procedure will ensure that there is always sufficient room in the containment area to accommodate 100% of the full volume of Tank 12, should a catastrophic release occur. A copy of the revised SOP will be provided to supplement this letter, by May 15, 2006.

In 2005, as part of routine facility maintenance, DESCC embarked on a project to reline several secondary containment areas. As part of this overall project, a bid was obtained for relining of the Tank 12 secondary containment area in January 2006. (A copy of the



relevant bids and Purchase Order are attached as Exhibit D). That relining project for the secondary containment areas was begun in the fall, suspended due to weather concerns over the winter, and has now been resumed. The relining of the Tank 12 secondary containment area was completed on April 22, 2006. During the course of this work, the contractor, General Acid Proofing, Inc., observed the condition of the containment area, and reported that no holes, cracks or defects in the concrete of the containment structure were observed. A professional engineer will review the relining of the containment area by May 31, 2006.

Accordingly, the Tank 12 "system" has been demonstrated in the past to have sufficient integrity to handle a D002 waste stream, current evaluation of the system demonstrates that it has continued to operate in good condition, and future operating practices will continue to ensure that the integrity of the tank and containment system are maintained. In sum, we do not believe that these circumstances constitute a hazardous waste and/or liquid industrial waste notification event as identified in your letter.

Nevertheless, we are cognizant of your concern regarding the frequency with which D002-type materials are contained within the secondary containment structure. While the presence of this material in the secondary containment is not improper, so long as there is no release from the secondary containment to the environment, we share your concern about the frequency of these events and are currently conducting a review of the operating procedures plant-wide as they affect the material contained within the Tank 12 system.

Repairs? In this regard we have completed the following: The Tank 12 system is designed with high level alarms and overfill protection. The high level alarm has been repaired, and was most recently tested on April 16, 2006. Going forward, it will be tested on a monthly basis to ensure that it is operating properly. The high level alarm causes shut-off of the sandpiper (sump pump) units that collect liquids from the process area and automatically pump the liquid to Tank 12. This will prevent liquid from the sandpipers from causing an overflow of Tank 12. Additionally, because liquids are also pumped manually to Tank 12, the relevant employees will be retrained on existing procedures to limit overfilling of the Tank and ensure inspection of liquid levels and removal of liquid from Tank 12 when the level in Tank 12 is greater than 85 inches. Please see documents attached as Exhibit E regarding this procedure and recent retraining of the employees about this procedure.

We are also evaluating the possibility of rerouting the overflow piping for Tank 12 so that any overflow would be directed back to the HCD trench in the building, and would not flow into the Tank 12 secondary containment area.

#### DESCC Is Not Required To Notify MDEQ Of Events Which Do Not Constitute A Release To The Environment

DESCC is aware of the various requirements to provide the MDEQ with notification of a release of hazardous waste or liquid industrial waste materials to the environment. Historically DESCC has provided notification to MDEQ when such incidents have occurred at its facility. Under the current circumstances, with the integrity of the



Tank 12 secondary containment system demonstrated both by the appropriate Chester Report engineering certification and subsequent routine inspections, we are not aware of any information suggesting there is a release of hazardous waste or liquid industrial waste from the tank system to the environment. Nevertheless, as described above in our discussion regarding the integrity of the Tank 12 system, DESCSC is taking efforts to decrease the frequency of overfills into the Tank 12 secondary containment.

Under these circumstances, DESCSC is not aware of any requirement to provide notification to the MDEQ of events, which do not constitute a release to the environment.

Should we be incorrect in our understanding that notification to the MDEQ is only required for events, which constitute "releases to the environment", we would welcome discussions with your office to ensure that the appropriate procedures and practices are followed at our facility.

### Waste Characterization

Your March 29 letter expresses specific concern with respect to whether DESCSC has appropriately characterized the waste material going to Tank 12, the Tank 12 secondary containment, Tanks 43 and 44, and filter cake, which is more appropriately identified as the filter press for the plating solution (as opposed to wastewater treatment pretreatment).

Initially, because proper waste characterization also includes the application of "generator knowledge" DESCSC states that the processes and waste streams associated with the Tank 12 system, with Tanks 43 and 44, and with the filter press for the plating solution have not changed, and have remained constant, since at least January 2000. Over this time period, DESCSC's relevant production, raw material usage and processes employed have remained the same.

DESCSC recognizes your specific concern with respect to pH levels of spent caustic bath. Initially, it should be pointed out that the caustic material collected in Tank 12 is typically sent for beneficial reuse to Dynecol, in Detroit, Michigan. Attached, as Exhibit F is a Waste Approval Form Recertification Form from Dynecol that states that Dynecol is using the Tank 12 caustic as a substitute for a commercial product. Also attached, as Exhibit G, is a Dynecol letter to MDEQ describing how it beneficially reuses materials that it receives (note - the Dynecol letter addresses a different waste stream from another supplier, not DESCSC, and is being submitted just as an example of how Dynecol handles materials for beneficial reuse).

The determination of whether the caustic is sent for beneficial reuse or disposed as hazardous waste is made after the material is removed from Tank 12. This determination is made by Dynecol, and depends on whether the material meets Dynecol's specifications and whether Dynecol has a need or use for the material. A list of shipments of the caustic from Tank 12, either for beneficial reuse or as hazardous waste, are attached as Exhibit H.



Copies of characterizations of the caustic material are attached as Exhibit I, and include: An April 4, 2006 General Approval Notification from The Environmental Quality Company, which includes waste characterization data from 2001; and an August 30, 2002 analysis from Clayton Group Services of samples from Tank 12 and the downturn caustic (the liquid stream feeding Tank 12). Additionally, please see the Waste Approval Recertification Forms from Dynecol in Exhibit F.

A small amount of oil can separate from the solution contained in Tank 12. This oil is skimmed from Tank 12 and is sent to Environmental Quality as hazardous waste. An April 11, 2006 "corrosivity" analysis identified this used oil as non-hazardous. In addition, applying our generator's knowledge, this process has remained stable and has not changed for many years. Copies of characterizations of the used oil from Tank 12 are attached as Exhibit J, and include the April 11, 2006 analysis from Schrader Laboratories. A certified 2005 Used Oil profile submitted to Usher Oil Company is also included in Exhibit J. In the future, if used oil removed from Tank 12 meets Usher's specifications, it will be sent to Usher as used oil.

In addition, copies of a certified Used Oil profile submitted to Usher Oil Company for the used oil from Tanks 43 and 44 is attached as Exhibit K.

The issues in your letter regarding filter cake may represent some confusion on your part regarding our process. The filter cake we believe you are concerned with is filter cake generated from the filter press for our plating solution, not filter cake associated with wastewater. The filter press located near Door 10 is designed to filter active process plating solution. This filter press is not associated with any wastewater. Attached to this response is waste characterization documentation from 2005 and 2006 for the disposal of the filter cake from the filter press for the active process plating solution. (See Exhibit L.) In addition, applying our generator's knowledge, this process has remained stable and has not changed for many years. This characterization demonstrates it is non-hazardous and is representative of this particular process. This material is currently disposed as industrial liquid waste sludge because it does not pass the paint filter test. We believe that this characterization is sufficient to ensure the adequacy of the characterization on an ongoing basis. We would be happy to discuss this practice further to ensure that no further confusion remains, and achieve a consensus that existing procedures are adequate.

Your letter also expresses interest in hazardous waste and liquid industrial waste characterization facility wide. Accordingly, copies of waste stream characterizations are attached as Exhibit M.

DESCC does not utilize written operating procedures for managing waste characterizations. Instead, DESCC operators use their best professional judgment to manage the waste streams and comply with applicable TSD requirements in order to facilitate disposal of the waste material. All of the waste characterizations are, and have been, maintained with the environmental waste management files. To the extent there was any confusion during MDEQ's inspections regarding the location and availability of these waste characterizations, DESCC regrets any such confusion that may have been caused by Mr. McBee's lack of familiarity with these records during the inspections.



## Used Oil

Your March 29 letter raises concerns regarding the storage of used oil and the need to label or mark all containers as "Used Oil." To the extent that the material contained within the Tank 12 system is **characteristically hazardous waste**, we are concerned that the suggestion to mark the tank as a "used oil" tank may conflict with the requirements associated with hazardous waste. It is our understanding that mixtures of used oil and characteristically hazardous waste are typically regulated as hazardous waste rather than used oil. Of course, should our understanding of this issue be incorrect or require refinement, we would appreciate the opportunity to discuss it with you to ensure that the facility is following the appropriate practices, procedures and marking requirements.

You have also inquired as to our activities to ensure the integrity of Tank 12 and associated secondary containment, as that issue relates to used oil storage and the release or potential release of used oil to the environment. We believe that the discussion above regarding hazardous waste and liquid industrial waste and the integrity of Tank 12 and the Tank 12 secondary containment system should address your similarly stated concerns under used oil. We also note that potential conflict between the hazardous waste and used oil regulations as noted immediately above. Please let us know if the MDEQ is of the opinion that there are other additional requirements not otherwise covered by the preceding discussions.

## 90-Day Storage Accumulation

The March 29 letter also raises several ancillary issues, the first of which is concern regarding DESCSC demonstrating compliance with the 90-day accumulation time for material stored in Tank 12. In that regard, the throughput of material in Tank 12, which is a 20,000 gallon tank, is such that the contents of the tank turns over many times during any given 90 day period. When the caustic material from Tank 12 is sent for beneficial reuse, it is withdrawn near the bottom of the tank. It is removed with a frequency and volume that demonstrates that none of the caustic material remains in the tank for more than 90 days. Please see the list of shipments of materials from Tank 12, attached as Exhibit H.

The March 29 letter also inquires about the disposition of used oil to be recycled or disposed. Accordingly, enclosed for your review are spreadsheets detailing the final disposition of all used oil from the entire facility from March of 2005 through the present. See Exhibit N. The supporting manifests for used oil shipments for the past several years are voluminous, and are not being attached to this letter. If you would like copies of the manifests to be provided, please advise us.

The March 29 letter also inquired as to the current status of DESCSC's Site Identification Verification Form ("SIVF"). At the time of the February 27 and March 7 inspections of DESCSC's facility, the SIVF on file with your office was correct as of the time of the then most-recent filing of the facility's biennial report. In response to your letter and to address the recent change in personnel, we have enclosed for your files the revised

SIVF form filed with the biennial report submitted this year; the revised SIVF, dated March 20, 2006, contains updated contact personnel information. See Exhibit O.

We hope that this response addresses the majority of issues raised in your March 29, 2006 letter. To the extent there remain open issues, which we need to discuss with your office, please contact us to schedule the appropriate meeting or telephone conference. Further, should you require additional information related to any of our responses here, please contact us directly in writing specifying that additional information required and we will respond in due course.

With the departure of Mr. McBee, please direct any inquiries to our environmental counsel, Scott Dismukes at 412-566-1999.

Sincerely,



Tom Kevin  
Plant Manager

cc: Mr. Duncan Campbell, U.S. EPA  
Mr. Marc Swientoniowski  
Mr. Donald S. Windeler  
Robert F. Casselberry, Esq.  
Scott R. Dismukes, Esq.



James Day  
<dayja@michigan.gov>  
04/13/2006 10:23 AM

To  
Subject Re: Draft Report

Please see the attached diagram penned by Mr. Swientoniowski during my March 7, 2006 follow-up visit to the facility. That may answer your questions below. Note the depiction of the trench leading to Tank 12 and a separate pump depicted in line with Tank 12, opposite of the trench line. I take the OWS to be the oil-water separators (Tanks 43 and 44). The "C" designation refers to two small centrifuges prior to the OWS. Q613 and Q618 appear to refer to primary component of the 1st and 2nd cleaner baths, respectively.

As for the "downturn caustic," I understand that to be the partial emptying of Tank 12 as part of their periodic maintenance activities. I do not understand the downturn caustic to indicate the periodic, unplanned overflows of Tank 12. Those events were recorded typically as "Dike" on the manifest. See: MI9509383 within the Double Eagle March 13, 2006 information request response.

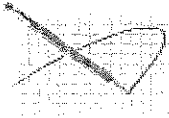
>>> <Campbell.Duncan@epamail.epa.gov> 04/12/06 3:39 PM >>>  
Jim -

I ran out of knowledge when it comes to Tank 12. My notes say they have this nifty HCD recirculation system - what I'm unclear of is whether Tank 12 is part of that "closed-loop system." I had in my mind that the sump and trench located within the Terminal Building functioned as the reservoir for the caustic wash. The waste characterization report from EQ explains the waste as -- Downturn Caustic --- clean up of high current density recirculation system (trenches, sumps) for cleaning coiled steel prior to galvanizing.

None of this explains, to me, what and when materials get pumped into Tank 12.



Double Eagle Tank 12.pdf



Duncan  
Campbell/R5/USEPA/US  
04/12/2006 03:10 PM

To dayja@michigan.gov  
cc  
bcc

Subject Draft Report

Jim - Double Eagle just called me. I had some gross misunderstandings about process and origins of chrome. Chrome is an issue -- at times. Not from the plating baths themselves, but from degradation of Hastalloy bands - which are made of stainless steel. When these bands degrade they taint the plating baths from both the zinc and alloy along. They explained that there are four sumps in the basement - three of them cascade [zinc + alloy + waste acid] or are tied together. Periodically [not defined] solids build up and need to be removed. They thought that these materials have been managed as haz waste in the past, but didn't think this maintenance had occurred during 2005 or 2006.

The Door 10 sludge is a side stream --- filtering the plating baths of solids - and is not in series with the stuff down in the "snake pit."

---

Jim -

I ran out of knowledge when it comes to Tank 12. My notes say they have this nifty HCD recirculation system - what I'm unclear of is whether Tank 12 is part of that "closed-loop system." I had in my mind that the sump and trench located within the Terminal Building functioned as the reservoir for the caustic wash. The waste characterization report from EQ explains the waste as -- Downturn Caustic --- clean up of high current density recirculation system (trenches, sumps) for cleaning coiled steel prior to galvanizing.

None of this explains, to me, what and when materials get pumped into Tank 12.



Duncan  
Campbell/R5/USEPA/US  
04/12/2006 11:58 AM

To "Swientoniowski, Marc" <Swientoniowski@descc.com>  
cc dayja@michigan.gov  
bcc  
Subject RE: Acid baths

"Swientoniowski, Marc" <Swientoniowski@descc.com>

Duncan,

----- Do note, the Alloy Plating Solution is its own entity and is separate from the Zn Plating Solution -----



alloystd.pdf



FeCl2.pdf

Marc - I had written in my notes that waste from the Chemical Building ---- sumps - was shipped off-site as a hazardous waste due to its corrosivity and the presence of chromium. I took a look at the alloy and zinc plating solutions and don't see chromium listed as a constituent in either formula. Did I misunderstand what Chris McBee was telling me. Does Double Eagle generate a hazardous waste from its electro-galvanizing process in the Chemical Building? I am aware that the Door 10 Sludge has been characterized as a liquid industrial waste and is sent off-site to EQ Detroit but haven't seen information with respect to a second wastestream generated in the Chemical Building.

Thanks

DC

04/12/2006

telephone  
conference  
call  
with  
DES CC  
in the pm  
of 4/12

MARC -

Tom Kevin -

#10

→ is

side stream

complete

Deadline with MDEQ

~~Has alloy band~~

- ~~has waste band~~

CURRENT through

strip -

wearing away  
of  
stainless

Hasie  
Band



"Swientoniowski, Marc"  
<Swientoniowski@descc.com>

To  
Subject RE: Acid baths

04/12/2006 09:10 AM

Duncan,

I will be sending to you several emails with MSDS attachments of the components used to comprise the Alloy Solution bath. Do note, the Alloy Plating Solution is its own entity and is separate from the Zn Plating Solution.

I'll begin attaching 2 MSDSs per email beginning here. The Alloy Standard which determines the concentration of each component is attached as well.

Regards,

Marc

-----Original Message-----

From: Campbell.Duncan@epamail.epa.gov  
[mailto:Campbell.Duncan@epamail.epa.gov]  
Sent: Tuesday, April 11, 2006 4:55 PM  
To: swient@descc.com  
Cc: dayja@michigan.gov  
Subject: Acid baths

Marc -

During our site visit Chris McBee told me that Double Eagle uses two formulas in the electrogalvanizing process. Please provide a MSDS for the "alloy" which is added to the zinc coating.

Thanks  
DC



alloystd.pdf



FeCl2.pdf



Duncan  
Campbell/R5/USEPA/US  
04/11/2006 03:50 PM

To swient@descc.com  
cc dayja@michigan.gov  
bcc

Subject Acid baths

Marc -

During our site visit Chris McBee told me that Double Eagle uses two formulas in the electrogalvanizing process. Please provide a MSDS for the "alloy" which is added to the zinc coating.

Thanks  
DC

Duncan  
Campbell/R5/USEPA/US  
04/11/2006 12:38 PM

To dayja@michigan.gov  
cc  
bcc

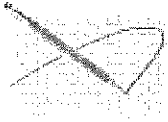
Subject Report

Jim -

I'm putting fingers to keyboard and finally writing my inspection report for Double Eagle. Can you refresh my knowledge of this facility --

I wrote - the facility was constructed in 1984 but then I wrote that it was created as a joint venture between Rouge Steel [which used to be owned by Ford Motor] and US Steel in 1985. Then I wrote that ~~US Steel sold its interest to Severstal~~ ----- or was it Rouge Steel that sold its interest??? *WRONG* *yes*

The MDEQ Site Identification on WDS indicates something happened on May 16, 1985 ----- someone bought out someone or the name changed? From WDS I see that something happened on 3/8/2004 with respect to Severstal but am unclear the significance. Did Severstal become both the legal owner and operator or one or the other on this date? The WDS Site Comments stop at 2/21/2002 so I can't look back that far. Using the EPA site called RCRAInfo it indicates Severstal became the operator on 3/8/2004 but is silent on who the new owner became. RCRAInfo does indicate Double Eagle Steel Coating ended being the owner on 3/8/2004 - but as I said, the WDS Site Identification stops short of indicating who the new owner is.



Duncan  
Campbell/R5/USEPA/US  
04/07/2006 09:43 AM

To: Kristen Rachwal <Kristen.Rachwal@eqonline.com>

cc

bcc

Subject: Re: More

Sorry - I meant HF041953

---

Kristen -

I had glossed over your previous explanation - but now am clear - regarding EQ's activities with respect to this wastestream. This has been very helpful. I will request copies of manifest for HF054693 directly from Double Eagle. Thanks again for all of your time and information.

DC

"EQD does not print manifests **for this customer**. As I said in a previous e-mail, Double Eagle calls us to schedule a time slot for whatever they are shipping. They identify the waste as "Downturn Caustic," and no other information is given to our scheduler. We have no contact with the transporter until they check in at our gate. As EQD was not involved in the generation, pump-up, or preparation for transport, I do not know who generated the manifest in question, wrote "Dike" in section J, or from where at the Double Eagle site the waste was being pumped."

This is very helpful.



Kristen Rachwal  
<Kristen.Rachwal@eqonline.com>

To  
Subject Re: More

04/07/2006 09:21 AM

Duncan,

Our profile asks only for the waste common name and the generating process. EQD would not necessarily be aware of the specific "point of generation" within a generator's site address. If the fingerprint matches the profile information at receipt, and there are no manifest discrepancies, we would not question anything. To us, the "downturn caustic" is the same chemically, and from a treatment standpoint, regardless of whether it came from the system identified in section 4 of the profile, or the dike surrounding it.

EQD does not print manifests for this customer. As I said in a previous e-mail, Double Eagle calls us to schedule a time slot for whatever they are shipping. They identify the waste as "Downturn Caustic," and no other information is given to our scheduler. We have no contact with the transporter until they check in at our gate. As EQD was not involved in the generation, pump-up, or preparation for transport, I do not know who generated the manifest in question, wrote "Dike" in section J, or from where at the Double Eagle site the waste was being pumped.

I wish I could be more help. Please let me know if you have any further questions.

Kristen Rachwal, CHMM  
Regulatory Specialist  
EQ Detroit, Inc.  
1923 Frederick Street  
Detroit, MI 48211  
P: 313-923-0080  
F: 313-923-0217  
Kristen.Rachwal@eqonline.com

>>> <Campbell.Duncan@epamail.epa.gov> 4/5/2006 11:48 AM >>>

You wrote ----- "The pH of both shipments on 2/20/06 (manifests 9509383 and 9509379) was 13"

Kristen - I'm trying to understand the sequence of events. Is the acceptance profile for the Downturn Caustic [HF041953] broad enough in scope so that if EQ received a phone call from Double Eagle saying that the point of generation would be in the dike surrounding a tank outside the building - that EQ would feel comfortable enough to accept the loads (2) under the established profile basis of the fingerprint analysis?

Here's my guess: EQ prints the manifest - and somehow gives it to the transporter. In this instance, did EQ know in advance that the pickup would not be from the trenches and sump which defines the "recirculation system" as described in Section 4 of EQ's Waste Characterization Report which you faxed me last week? If this is accurate then EQ may have hand written "Dike" in box "J." If the transporter or Double Eagle made

Duncan  
Campbell/R5/USEPA/US

03/31/2006 02:55 PM

CST

To: Kristen Rachwal <Kristen.Rachwal@eqonline.com>

cc

bcc

Subject: Re: Fax

"This facility does not give any instructions to the driver going to pick up this material. We have little or no contact with the transporter until they arrive at our gate. Generally, Chris McVee at Double Eagle calls our Scheduling Coordinator to get a time slot for whichever transporter they have chosen. EQIS may also occasionally provide transportation for this material. When this occurs, someone from EQIS calls to schedule the load, but that is the extent of the conversation."

Kristen - I inspected Double Eagle on February 27th. Chris McVee told me that materials from Tank 12 were being sent off-site under the exemption for "beneficial reuse." I also heard from others that Tank 12 "frequently" overflows into its secondary containment. I have in my possession a few manifest from 2006 for this wastestream [HF041953]. On two of these there is a handwritten comment in box J suggesting that some or all of the load may have been removed from the "dike." I am interpreting "dike" as the secondary containment surrounding Tank 12. Specifically, the two manifest are both dated 02/20/2006 [MI9509383 and MI9509379]. Vac-All was the transporter for both of these shipments. The two manifest total 5600 gallons of materials. Clearly, if the pH was below < 12.5 then Double Eagle's only transgression may have been being over protective by classifying these two loads as hazardous waste. However, if the reverse is true, then I need to know more. Clearly, if EQ has pH data from loads indicated as originating from the "dike" this information would be valuable to EPA in making its determination of compliance with RCRA regulations.

Thanks  
DC





Kristen Rachwal  
<Kristen.Rachwal@eqonline.com>

To  
Subject Re: Fax

03/31/2006 02:45 PM

~~CS~~  
CS

Duncan,

I don't think you are missing anything important on HF041953-just an internal tracking number and a list of EQ facilities.

Yes, EQD does perform a pH test as part of our fingerprint on all inbound loads.

This facility does not give any instructions to the driver going to pick up this material. We have little or no contact with the transporter until they arrive at our gate. Generally, Chris McVee at Double Eagle calls our Scheduling Coordinator to get a time slot for whichever transporter they have chosen. EQIS may also occasionally provide transportation for this material. When this occurs, someone from EQIS calls to schedule the load, but that is the extent of the conversation.

Hopefully this helps a little!  
Kristen

>>> <Campbell.Duncan@epamail.epa.gov> 3/31/2006 3:09 PM >>>  
Kirsten -

Thanks for sending the information - our fax machine was jammed - so I had to do some wizardry. Now I have to bug you with my questions.

Am I missing the approval # HF041953 ??? There is some handwriting on the top of the first page that got cut off - but it looks like initials. I clearly see "Downturn Caustic" as a common name.

Under Section 4 - Mark Gornick used generator knowledge in checking the box for a pH of > 12.5 but the accompanying analytical indicates the test sample had a pH of 10.8 ----- does EQ finger print for pH on a load by load basis?

Finally, when I was there at the plant they explained that it takes a vacuum truck with a long hose to remove materials from this sump - the sump/trenches Mark describes in Section 4 on page two of EQ's Waste Characterization Report. I've looked at maybe a dozen manifest and it seems like the transporter may change. My question - would EQ provide strict instructions to the driver to only vac materials out of the sump/trench located in the "Terminal Building." The reason I ask is there is a tank [Tank #12] immediately outside this area - on the north side. I am trying fill in a spreadsheet of various generation points and storage areas. I haven't identified a waste characterization for the contents of Tank 12 yet - so have no idea if this material comes to EQ Detroit.

Thank you again for your time and efforts  
DC



Duncan  
Campbell/R5/USEPA/US

03/31/2006 01:48 PM

CST

To kristen.rachwal@eqonline.com

cc

bcc

Subject Fax

Kirsten -

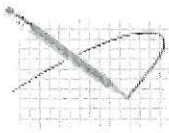
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Thank you again for your time and efforts  
DC



Duncan  
Campbell/R5/USEPA/US  
03/30/2006 01:28 PM

To swient@descc.com  
cc dayja@michigan.gov  
bcc

Subject Informal request for information

Marc -

I would like to have a copy of the following documents:

- the 2005 [most recently completed] biennial report submitted to MDEQ
- the waste characterization for the hazardous waste [solids] that have been shipped to Dynecol
- 1. Michigan manifest MI9509347 shipped on 01/05/2006
- 2. Michigan manifest MI9509345 shipped on 12/28/2005
- 3. Michigan manifest MI9509346 shipped on 12/27/2005
- the waste characterization for the hazardous waste [liquid] that has been shipping to EQ
- 1. Michigan manifest MI9509358 shipped on 01/12/2006
- 2. Michigan manifest MI9509357 shipped on 01/12/2006
- 3. Michigan manifest MI9509331 shipped on 12/07/2005
- 4. Michigan manifest MI9509323 shipped on 11/22/2005
- 5. Michigan manifest MI9509311 shipped on 11/11/2005
- the waste characterization for the hazardous waste [liquid] that has been shipped to Dynecol
- 1. Michigan manifest MI10088241 shipped on 11/08/2005

Thank you in advance for your cooperation

Duncan Campbell

*Handwritten notes in red ink:*  
Dynecol  
① TK-12 Approval # 3754  
② DOWNTOWN CAUSTIC Cleanup Approval #14242  
} CLEANER TANK SKIM



James Day  
<dayja@michigan.gov>  
03/30/2006 08:46 AM

To  
Subject Re: Double Eagle

✓ LIW/Used Oil

Mr. McBee has described Tanks 43 and 44 to be connected and including mainly water, but also hydraulic oil from the plant. I am not aware that these tanks are connected in any way to Tank 12, although Mr. McBee indicated in recent telephone conversations, and in a fax transmittal I received yesterday that the designation "Tank 43 & 44" is used as a characterization designator for both Tank 43 & 44 waste approval and for non-haz (oil containing) waste liquids sent off-site from Tank 12. That has made their manifests somewhat confusing. As an example, Manifest MI9509258, dated 09/09/05, references Tank 43/44, but Chris has explained that this waste stream would actually be the non-haz designated liquids pulled from the secondary containment of Tank 12.

A letter was finalized to the Company yesterday. You are copied and should receive it soon.

>>> <Campbell.Duncan@epamail.epa.gov> 03/29/06 3:59 PM >>>  
Jim -

Wastewater Tank 43/44 ??????????????????????

Do understand the relationship between these tanks and Tank 12?

DESCC - has offered to test  
the DOR 10 sludge on  
a segregated basis

NOT  
included  
on  
WDS on-line  
may have  
been for LIW  
only





JENNIFER M. GRANHOLM  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
SOUTHEAST MICHIGAN DISTRICT OFFICE



STEVEN E. CHESTER  
DIRECTOR

March 29, 2006

Mr. Thomas J. Kevin, Plant Manager  
Double Eagle Steel Coating Company  
3000 Miller Road  
Dearborn, Michigan 48120

Dear Mr. Kevin:

SUBJECT: MID981092190

On February 27, 2006 and March 7, 2006, staff of the Department of Environmental Quality (DEQ), conducted an inspection of Double Eagle Steel Coating Company, (hereafter Facility), located at 3000 Miller Road, Dearborn, Michigan. These inspections were performed to evaluate compliance of the Facility with Part 111, Hazardous Waste Management (Part 111) and Part 121, Liquid Industrial Wastes (Part 121) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA); Subtitle C of the federal Resource Conservation and Recovery Act of 1976, as amended (RCRA); and any administrative rules or regulations promulgated pursuant to these Acts. The March 7, 2006 inspection was performed as a follow-up to the February 27, 2006, United States Environmental Protection Agency (UESPA) led joint-inspection of the facility performed by DEQ staff in conjunction with a representative of Region V of the UESPA.. A copy of the completed DEQ inspection forms can be obtained by contacting this office. USEPA, as the lead agency for establishing the RCRA compliance status of the Facility during the February 27, 2006 inspection, will forward that agency's findings under separate cover and are herein copied on this transmittal.

As a result of the initial and follow-up inspections performed at the Facility, staff of the DEQ has determined that the above Facility is in violation of the following:

1. Rule 299.9302: Rule 299.9307(1): 40 CFR 262.11, 40(c): 40 CFR 268.7(a)(6) & (8): Part 121, Section 12103(1)(a) and (3): the Facility, as a generator of hazardous waste and liquid industrial waste (LIW), is required to characterize that waste in accordance with the requirements of Part 111, Hazardous Waste Management, and rules promulgated under that part, and the requirements of 40 CFR 262, Federal Standards Applicable to Hazardous Waste Generators, and to maintain records of that characterization on-site for a period of three (3) years. Hazardous waste and LIW generated at the facility has been identified to include, but not be limited to: 1) spent caustic process bath stored within a 20,000 gallon "end-of-line" holding tank (Tank 12); 2) spent caustic process bath released from Tank 12 into a secondary containment structure associated with that above ground storage tank; 3) waste water and hydraulic oil stored within two (2) above ground storage tanks (Tanks 43 and 44) located proximate to Tank 12; and 4) filter cake containing free-liquids that is generated from waste water treatment pre-treatment associated with the Facility's zinc and alloy electro-galvanizing process.



Facility personnel indicated to DEQ staff that field characterization of pH levels associated with the spent caustic process bath is performed by on-site Facility laboratory personnel prior to "caustic downturn" extraction from Tank 12 and prior to remedial pumping and transport off-site of the spent caustic bath released into the secondary containment structure associated with Tank 12. Facility personnel were not able to provide to DEQ staff documentation of the recorded pH levels or other characterizations that had been completed on the spent caustic bath for the previous three years. Facility personnel indicated that pH and other characterization records associated with the spent caustic bath have not historically been recorded in the operating record and are thereby not available for DEQ staff review.

In addition, waste characterization associated with filter cake generated from waste water treatment pre-treatment associated with the Facility's zinc and alloy electro-galvanizing process has been historically shown to be hazardous for chromium. More recent waste characterization documentation provided to the DEQ has indicated the waste water pre-treatment filter cake waste stream generated by the zinc and alloy electro-galvanizing process may be, at times, manageable as a non-hazardous LIW. The characterization documentation provided to the DEQ, however, is of insufficient scope and frequency to ensure adequate characterization and management of the filter cake generated at the Facility during the last three years.

Please provide, in response to this letter, updated characterization documentation of all hazardous waste and LIW waste streams generated at the Facility, pursuant to the aforementioned State and Federal requirements, including the spent caustic process bath stored within Tank 12 and released into the associated secondary containment structure, waste water and hydraulic oil stored within Tanks 43 and 44, and filter cake containing free-liquids that is generated from waste water pre-treatment associated with the Facility's zinc and alloy electro-galvanizing process. The characterization of these and other subject hazardous waste and LIW waste streams can be in the form of testing the waste according to methods set forth in Part 111, or by applying knowledge of the hazardous characteristics of the waste in light of the materials or processes used.

Please include, as well, documentation of standard operating practices that have been put in-place or will be implemented to ensure the appropriate characterization and management of all subject hazardous waste and LIW waste streams generated by the Facility. Also included within this response, documentation as to changes in the record keeping procedures implemented by the Facility to ensure that records associated with all appropriate hazardous waste and LIW waste stream characterizations are maintained on-site for review by State and Federal personnel.

- ✓ 2. Rule 299.9306(1)(e) & (f) and 299.9307(1): Part 121, Section 12113(1), (2) & (3): the Facility, as a generator of spent caustic hazardous and LIW, is required to ensure protection of the generated waste streams from the weather, and to ensure protection of those waste streams from release into the soil, surface water or groundwater, drain or sewer, or air. Facility personnel indicated to DEQ and USEPA staff during the initial and follow-up site visits, that standard operating procedures associated with spent caustic process bath stored within Tank 12 includes the periodic release of hazardous waste and LIW spent caustic process bath from Tank 12 into its associated secondary containment structure. Documentation provided to the DEQ indicates that discharge volumes of between 2,500 and 7,500 gallons of spent process bath have historically been released into the secondary containment structure. Documentation provided to the



DEQ indicates that these materials are reportedly discharged into the secondary containment structure on a bi-monthly or more frequent basis.

The Facility, by improperly allowing the release of hazardous waste and LIW entrained with corrosion protection process oil into secondary containment associated with Tank 12, has failed to ensure the protection of characteristic hazardous waste liquids and LIW from weather. Visual inspection of the secondary containment structure found free liquids to be present within that structure, limiting the ability of DEQ staff to make a determination as to whether the secondary containment structure is adequately preventing the release of hazardous waste liquids and LIW from being discharged into the soil, surface water or groundwater, drain or sewer, or air. The continued periodic release of hazardous waste liquids and LIW into the secondary containment structure, and the inability of the Facility to ensure the integrity of the secondary containment structure and Tank 12, is a violation of treatment, storage and disposal requirements associated with these waste streams, and associated or ancillary requirements of Parts 111, 121, 31, and 55 of Act 451.

Please provide, in response to this letter, documentation as to changes that have been implemented, including standard operating procedures initiated or ceased that will ensure the aforementioned illicit discharges of hazardous waste liquids and LIW into the secondary containment structure associated with Tank 12 are discontinued. Also, please provide, in response to this letter, documentation of the remedial actions, repairs, reviews, certifications, etc., that will take place to ensure that integrity of Tank 12 and its associated secondary containment structure, so that the appropriate storage and containment of hazardous waste liquids and LIW can be performed in a manner that will ensure protection from releases of hazardous waste liquids and LIW being discharged into the soil, surface water or groundwater, drain or sewer, or air, as called for within Parts 111, 121, 31, and 55 of Act 451 and associated State, Federal and local regulations and requirements.

3. Part 121, Section 12111(1) and (2): the Facility, as a generator of spent caustic process hazardous waste and LIW, is required to notify the DEQ and other appropriate State, Federal and local agencies of the release incidents that have taken place at the Facility, including the release of hazardous waste liquids and LIW into the secondary containment structure associated with Tank 12. The Facility is also required to prepare and maintain as part of their records a written report documenting incident and response actions taken, including any supporting analytical data. Facility personnel indicated to DEQ and USEPA staff during the initial and follow-up site visits that the Facility has not been reporting historical releases of spent caustic process hazardous waste and LIW to the DEQ and other appropriate State, Federal and local agencies. Facility personnel did not provide to DEQ and USEPA staff records or other written documentation associated with historical release incidents associated with Tank 12, including response actions undertaken by the Facility, and any supporting analytical data.

Please provide, in response to this letter, standard operating procedures that will be put into place to ensure all future release incidents of hazardous waste liquids and LIW into the secondary containment structure associated with Tank 12 will be reported to the appropriate State, Federal and local agencies, and that the Facility will maintain as part of their records a written report documenting incident and response actions taken, including any supporting analytical data.



4. Rule 299.9810(3): Rule 299.9816(2): 40 CFR 279.22(c)(1): the Facility, as a generator of used oil that is stored on-site, is required to label/mark "Used Oil" on all containers storing used oil. Facility personnel described to DEQ and USEPA staff, that the spent caustic process bath stored within Tank 12 includes entrained corrosion protection process oil generated from the pre-treatment cleaning of rolled steel. Tank 12 did not include a "Used Oil" label or marking during the performed initial and follow-up site visits.

Please provide, in response to this letter, documentation that the appropriate "Used Oil" labeling/markings has been or will be affixed on all containers used to store used oil at the Facility, to include Tank 12 and its associated piping and secondary containment structure.

5. Rule 299.9810(3): Rule 299.9816(2): 40 CFR 279.22(d)(1 & 4): the Facility, as a generator of used oil that is stored on-site, is required to stop releases of used oil and prevent future releases by, if necessary, repairing or replacing any leaking oil containers or tanks. Facility personnel did not indicate to DEQ and USEPA staff that measures have been implemented to halt the periodic releases of oil laden spent caustic process bath stored within Tank 12, nor have they indicated that repairs have been made and/or equipment replaced to ensure future releases of this material does not take place from Tank 12 into its associated secondary containment structure.

Please provide, in response to this letter, documentation of remedial actions, repairs, reviews, certifications, etc., that will be implemented to ensure the integrity of Tank 12 and its associated secondary containment structure, so that the appropriate storage and containment of hazardous waste liquids and LIW, including used oil, is provided.

In addition to the aforementioned violations that the Facility will be asked to respond to the DEQ directly, DEQ and USEPA staff identified Tank 12 to be a hazardous waste tank that is being operated in violation of State and Federal requirements associated with hazardous waste accumulated in tanks. As mentioned above, the USEPA, as the lead agency in the February 27, 2006 site inspection, will be forwarding under separate cover, that agency's findings on RCRA-related issues associated with Tank 12 and other findings identified during the February 27, 2006 site inspection. A summary of potential RCRA violations identified by DEQ staff are as follows:

- 40 CFR 262.34(a)(3): Failure to label or mark clearly Tank 12 with the words "Hazardous Waste."
- 40 CFR 265.191: Failure to fully assess the integrity of the existing hazardous waste storage tank system, for Tank 12 and its associated secondary containment structure.
- 40 CFR 265.193: Failure to ensure adequate secondary containment, including appropriate coating and structural integrity, for Tank 12, with those conditions being met before January 12, 1990, or when Tank 12 reached 15 years of age, whichever is later.
- 40 CFR 265.194: Failure to initiate controls and practices to prevent spills and overflows from hazardous waste tanks, including the documented overflows of hazardous waste spent caustic process bath from Tank 12.
- 40 CFR 265.195: Failure to inspect daily the condition and various release detection and control components of a hazardous waste tank and its associated secondary containment structure, including those detection and control components associated with Tank 12.



Completed inspections must be able to detect releases from the tank system, including the tank base.

- 40 CFR 265.196: Failure to remove from service immediately a hazardous waste storage tank system or secondary containment system from which there has been a leak, spill or which is otherwise unfit for use (Tank 12).
- 40 CFR 265.202: Failure to manage all hazardous wastes placed in Tank 12 in accordance with the applicable air emission standard requirements of 40 CFR 265, Subparts AA, BB, and CC.

The following comments/issues, which are not specific violations, were identified:

- A. As a Large Quantity Generator (LQG) of hazardous waste, the Facility is required to fully establish that the spent caustic process bath, hazardous waste stream stored within Tank 12 is accumulated on-site for 90 days or less or, alternatively, that the Facility is operating as a storage facility subject to the requirements of 40 CFR Parts 264 and 265 and the permit requirements of 40 CFR Part 270, **unless the Facility has been granted** an extension to the 90-day period. Please provide, in response to this letter, documentation used to establish the on-site storage time associated with spent caustic process bath within Tank 12, and how that relates to the 90-day or less accumulation standard for LQGs.
- B. Section 16704 of Public Act 451 requires that used oil be recycled and not disposed of by dumping onto the ground, discharging, dumping, or depositing into sewers, drainage systems, surface waters, groundwaters, or other waters of this state, by incineration, as refuse, or onto any public or private land unless the land is designated by the state or an agency or political subdivision of the state as a collection facility for the disposal, dumping, or deposit of used oil and if the used oil is placed in a receptacle or container installed or located at the collection facility. The Facility is required to fully establish the final disposition of used oil generated by the Facility, including used oil generated from the spent caustic process bath generated by the Facility. Please provide, in response to this letter, documentation used to establish the final disposition of all used oil generated at the Facility, to include corrosion protection process oil entrained within spent caustic process bath within Tank 12, and how the established final disposition of these materials meets the requirements of Section 16704 of Public Act 451.
- C. At the time of inspection, it was determined that the Site Identification Verification form on file with our office had not been updated by the Facility to include the appropriate site contact personnel. Please complete and submit an updated form EQP 5150 (enclosed) or go on-line and utilize MITAPS (<http://www.mi.gov/mitaps>) to include the appropriate form updates, as necessary, and verify this has been done in your response to this letter.

The Facility must respond to the above violations, and is requested to respond to the comments/issues noted in this letter. Please submit documentation to this office regarding those actions taken to address the violations and the comments/issues **by April 28, 2006**. The DEQ will evaluate the response, determine the Facility's compliance status and notify you of this determination.

This letter of warning does not preclude, nor limit, the DEQ's ability to initiate any other enforcement action, under state or federal law, as deemed appropriate.

Enclosed, for your information, are the following handouts: Waste Characterization; Waste Minimization; Used Electric Lamps & Small Ballasts; and Polychlorinated Biphenyls (PCB's) in Florescent Light Fixtures. Pollution Incident Prevention Plan (PIPP) guidance can be viewed at the following website: <http://www.deq.state.mi.us/documents/deq-ead-tas-pipp5summary.pdf>.

If you have any questions, please feel free to contact me.

Sincerely,



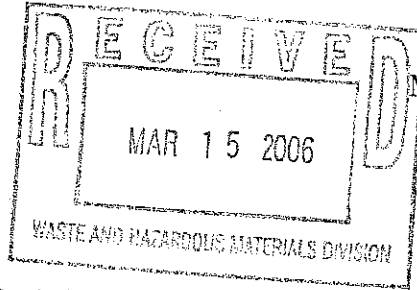
James A. Day  
Environmental Quality Analyst  
Waste and Hazardous Materials Division  
586-753-3835

Enclosures

cc: Mr. Duncan Campbell, USEPA  
Mr. Christopher McBee, Double Eagle Steel Coating Company  
Mr. Lawrence AuBuchon, DEQ



Mr. James Day  
MDEQ  
Waste and Hazardous Materials Division  
27700 Donald Ct.  
Warren, MI 48092-2793



March 13, 2006

Subject: Response to email request for information as follow up to February 27, 2006 Inspection  
Double Eagle Steel Coating Company (DESCC)

Dear Mr. Day:

Attached is the information you requested. I highlighted sections in your email addressing the particular information required and attached documentation covering that section.

If you have any questions, please contact me at 313-203-9829.

Sincerely,

A handwritten signature in cursive script that reads 'Christopher McBee'.

Christopher McBee  
Environmental Engineer

McBee, Chris

---

From: James Day [dayja@michigan.gov]  
Sent: Tuesday, February 28, 2006 3:06 PM  
To: mcbee@descc.com  
Subject: Double Eagle Steel Coating Company LIW Information Request

Pursuant to our telephone conversation today, I am requesting waste characterization data for each of the following Liquid Industrial Waste (LIW) waste streams generated by Double Eagle Steel Coating Company:

- 1) Tank 12 overfill shipments off site, *- as LIW oil and Water - Tank 43 and 44*
- 2) LIW shipments related to "non-overfill" maintenance activities within the sodium hydroxide process area, and *- as D002 Down turn Caustic*
- 3) LIW shipments related to filter press generated filter cake proximate to the electro-galvanizing process.

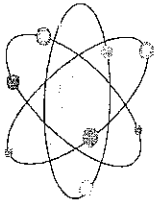
Also, please provide to my attention copies of the most recent manifests for each of the above LIW waste streams.

Also, please provide to my attention a representative MSDS for the sodium hydroxide process bath.

Thank you and contact me with questions.

James A. Day  
Environmental Quality Analyst  
Michigan Department of Environmental Quality  
Waste and Hazardous Materials Division  
27700 Donald Court  
Warren, Michigan 48092  
Phone: 586-753-3835  
Fax: 586-753-3831  
dayja@michigan.gov





## Midwest Analytical Services, Inc.

*"Where industry comes for answers"*

2905 Hilton Rd  
Ferndale, MI 48220

All test reports include a chain of custody and a cover sheet.

Phone: (248) 591-6660  
MI Only: (888) 801-4MAS  
Fax No: (248) 591-6668

Date: 20-Jan-06  
Client: Mark Swirczek  
Polar Environmental Service Corporation

Order ID: 0512165

MAS Sample #: 051221004

Project ID: Double Eagle

Sample I.D.: Waste Water Tank 43/44  
(GILE WATER)

The above mentioned project has been completed in accordance with the Quality Assurance Project Plan written by Midwest Analytical Services, Inc., using SW-846, DEQ, EPA, Standard Methods and ASTM documents as reference guidelines. Specific sample information is available upon request. This test report applies only to the samples received as stated on the Chain of Custody (COC).

Test reports are not complete unless accompanied by the COC and this cover sheet. MAS is not responsible for interpretation of this test report. Please read the following numbered comments carefully.

For your convenience the following legend applies to all the following data sheets:

1. Reports shall not be reproduced, except in full, without written approval of MAS.
2. N/D=Not detected.
3. Results relate only to the items tested.
4. ppm=parts per million, mg/l, mg/kg or mg/kg(dry weight)  
ppb=parts per billion, ug/l, ug/kg or ug/kg (dry weight)
5. QC information on file.
6. EQL=Estimated Quantitation Limit.
7. N/A=Not Applicable, Not Available.
8. Materials listed on the COC were analyzed as requested. See COC for details.
9. Data along with qualifiers make this a useable data set.

Additional comments and explanations:

PH- pH of sample aliquot analyzed does not match method requirements i.e. improper preservation of sample.

SL- Surrogate spike indicates low recovery.

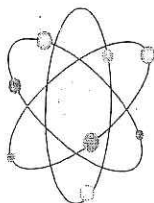
If you have any questions regarding this project feel free to contact me at (248) 591-6660 or (888) 801-4627.

Thank you for choosing Midwest Analytical Services.

*Charles Hindbaugh*

Greg Bogaert

Assistant Quality Manager



# Midwest Analytical Services, Inc.

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2905 Hilton Rd  
Ferndale, MI 48220

All test reports include a chain of custody and a cover sheet.

Phone: (248) 591-6660  
MI Only: (888) 801-4MAS  
Fax No: (248) 591-6668

To: Mr. Mark Swirczek  
Polar Environmental  
707 E Lewiston  
Ferndale, MI 48220

## Test Report

Order ID: 0512165  
MAS Sample #: 051221004  
Date Completed: 01/20/2006

Generator: Double Eagle

Waste Description: Waste Water Tank 43/44

Sample Date: 12/21/2005

Dearborn, MI

Contact: Jamal Haider

Telephone #: 248-546-6100

## Physical Characteristics Of Waste


Method Number	Parameter	Result	Units	Physical State at 70 Farenheight		Regulatory Limit	Analyst	Date Analyzed	Data Flag
				Color	Layers				
				Grey	Liquid				
					Blayer				
	TCLP Metals:								
SW 846 6010B	Antimony	N/D	mg/L	3.0	N/A	MV	12/29/2005		
SW 846 6010B	Arsenic	N/D	mg/L	0.18	5	MV	12/29/2005		
SW 846 6010B	Barium	7.1	mg/L	1.1	100	MV	12/29/2005		
SW 846 6010B	Cadmium	N/D	mg/L	0.13	1	MV	12/29/2005		
SW 846 6010B	Chromium	N/D	mg/L	0.13	5	MV	12/29/2005		
SW 846 6010B	Cobalt	N/D	mg/L	0.22	N/A	MV	12/29/2005		
SW 846 6010B	Copper	N/D	mg/L	0.13	N/A	MV	12/29/2005		
SW 846 6010B	Lead	0.29	mg/L	0.15	5	MV	12/29/2005		
SW 846 7470A	Mercury	0.00024	mg/L	0.0002	0.2	MV	12/29/2005		
SW 846 6010B	Molybdenum	N/D	mg/L	0.13	N/A	MV	12/29/2005		
SW 846 6010B	Selenium	N/D	mg/L	0.25	1	MV	12/29/2005		
SW 846 6010B	Silver	N/D	mg/L	0.13	5	MV	12/29/2005		
SW 846 6010B	Tin	N/D	mg/L	1.3	N/A	MV	12/29/2005		
SW 846 6010B	Zinc	7.5	mg/L	0.60	N/A	MV	12/29/2005		
SW 846 9076	Total Halogens	48	mg/Kg	10	N/A	MV	12/28/2005		
SW 846 9020B	Total Organic Halogens	60	mg/Kg	14	N/A	MV	01/19/2006		
	PCB:								
SW 846 8082	Aroclor - 1016	N/D	mg/Kg	0.50	N/A	DB	12/24/2005		SL
SW 846 8082	Aroclor - 1221	N/D	mg/Kg	0.50	N/A	DB	12/24/2005		
SW 846 8082	Aroclor - 1232	N/D	mg/Kg	0.50	N/A	DB	12/24/2005		
SW 846 8082	Aroclor - 1242	N/D	mg/Kg	0.50	N/A	DB	12/24/2005		
SW 846 8082	Aroclor - 1248	N/D	mg/Kg	0.50	N/A	DB	12/24/2005		
SW 846 8082	Aroclor - 1254	N/D	mg/Kg	0.50	N/A	DB	12/24/2005		
SW 846 8082	Aroclor - 1260	N/D	mg/Kg	0.50	N/A	DB	12/24/2005		
EPA 1664	Oil and Grease	2800	mg/L	3.0	N/A	GB	01/04/2006		PH

*Greg Bogaert*

Greg Bogaert

Assistant Quality Manager

22345 Roethel Drive  
Novi, MI 48375  
248.344.1770  
Fax 248.344.2654

① CAUSTIC WASTE FROM TANK 12 ② HCD RECIRCULATION  
③ TANK 12 DIKE  
IF pH  $\geq$  12.5  
TANK MAINTENANCE ACTIVITY  
 Clayton GROUP SERVICES

August 22, 2003

Mark Gornick  
DOUBLE EAGLE STEEL COATING COMPANY  
3000 Miller Road  
Dearborn, MI 48120-

Clayton Work Order No. 03080496

Reference:

Dear Mark Gornick:

Clayton Group Services received 1 sample on 08/13/2003 for the analyses presented in the following report.

Enclosed is a copy of the Chain-of-Custody record, acknowledging receipt of these samples. Please note that any unused portion of the samples will be discarded 30 days after the date of this report, unless you have requested otherwise.

This material is confidential and is intended solely for the person to whom it is addressed. If this is received in error, please contact the number provided below.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact a Client Services Representative at (800) 806-5887.

Sincerely,

*Karen Coonan*

Karen Coonan

Client Services Representative

cc:

## CASE NARRATIVE

Date: 22-Aug-03

CLIENT: DOUBLE EAGLE STEEL COATING COMPANY

Project:

Work Order No 03080496

The sample temperature upon receipt in the laboratory was an average of 8.9°C. (Samples were delivered to the laboratory approximately one hour after collection. This is not enough time for samples to cool down below 6°C.)

The TOC analysis was subcontracted to KAR Laboratories, Kalamazoo, MI.

### Analytical comments:

The Clayton Novi Laboratory is NELAP and AIHA accredited. These accreditations require that we provide the following information on each report: As an analytical result progresses above the reporting limit (RL), it has less variability than a result reported at, or near, the RL.

Analytical Comments for Method 8082W, sample -001A: The recovery for the surrogate Tetrachloro-m-xylene was outside of the statistical limits. Also, the Reporting Limit is elevated. This is due to sample matrix interference.

Analytical Comments for Method TOC\_W, sample -001C: Following acid preservation, this sample became biphasic. The (less dense) organic phase, which compromises approximately 5 percent of sample volume, could not be analyzed, due to matrix. Reported result represents concentration in aqueous phase.

# ANALYTICAL RESULTS

Date: 22-Aug-03

CLIENT: DOUBLE EAGLE STEEL COATING COMPANY

Client Sample ID: DOWNTURN CAUSTIC

Work Order No: 03080496

Tag Number:

Project:

Collection Date: 08/12/2003 3:00:00 PM

Lab ID: 03080496-001A

Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed
PCBS BY GC; METHOD EPA 8082						
Aroclor 1016	ND	2.0		µg/L	1	08/18/2003
Aroclor 1221	ND	2.0		µg/L	1	08/18/2003
Aroclor 1232	ND	2.0		µg/L	1	08/18/2003
Aroclor 1242	ND	2.0		µg/L	1	08/18/2003
Aroclor 1248	ND	2.0		µg/L	1	08/18/2003
Aroclor 1254	ND	2.0		µg/L	1	08/18/2003
Aroclor 1260	ND	2.0		µg/L	1	08/18/2003

Analyst: BVP

## Qualifiers:

ND - Not Detected at the Reporting Limit (RL).

J - Analyte detected below the Reporting Limit

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

T - Tentatively Identified Compound (TIC)



# ANALYTICAL RESULTS

Date: 22-Aug-03

CLIENT: DOUBLE EAGLE STEEL COATING COMPANY

Client Sample ID: DOWNTURN CAUSTIC

Work Order No: 03080496

Tag Number:

Project:

Collection Date: 08/12/2003 3:00:00 PM

Lab ID: 03080496-001B

Matrix: LEACHATE

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed
ICP METALS; LEACHATE: METHOD EPA 6010B						
Arsenic	0.11	0.10		mg/L	1	08/18/2003
Barium	ND	0.10		mg/L	1	08/18/2003
Cadmium	ND	0.050		mg/L	1	08/18/2003
Chromium	ND	0.10		mg/L	1	08/18/2003
Lead	ND	0.10		mg/L	1	08/18/2003
Selenium	ND	0.20		mg/L	1	08/18/2003
Silver	ND	0.020		mg/L	1	08/18/2003
MERCURY; METHOD EPA 1311/7470A						
Mercury	ND	0.0010		mg/L	1	08/18/2003

Analyst: DH

Analyst: CAW

## Qualifiers:

ND - Not Detected at the Reporting Limit (RL).

J - Analyte detected below the Reporting Limit

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

T - Tentatively Identified Compound (TIC)

# ANALYTICAL RESULTS

Date: 22-Aug-03

CLIENT: DOUBLE EAGLE STEEL COATING COMPANY

Client Sample ID: DOWNTURN CAUSTIC

Work Order No: 03080496

Tag Number:

Project:

Collection Date: 08/12/2003 3:00:00 PM

Lab ID: 03080496-001C

Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed
<b>IGNITABILITY; METHOD EPA 1010</b>						
Ignitability	>200	0		°F	1	Analyst: LRB 08/19/2003
<b>PH, ELECTROMETRIC; METHOD EPA 9040B</b>						
pH	14	1.0		pH Units	1	Analyst: MJR 08/18/2003
<b>REACTIVE CYANIDE, EPA SW 846 CHAPTER 7.3.3.2</b>						
Reactive Cyanide	ND	0.10		mg/L	1	Analyst: CAC 08/18/2003
<b>REACTIVE SULFIDE; EPA SW 846 CHAPTER 7.3.4.2</b>						
Reactive Sulfide	ND	100		mg/L	1	Analyst: CAC 08/18/2003
<b>TOTAL ORGANIC CARBON; METHOD: EPA 415.2</b>						
Total Organic Carbon	1,200	100		mg/L	1	Analyst: SUB 08/20/2003

## Qualifiers:

ND - Not Detected at the Reporting Limit (RL).

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B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

T - Tentatively Identified Compound (TIC)



James Day  
<dayja@michigan.gov>  
02/28/2006 02:25 PM

To  
Subject Re: Double Eagle Steel Coating Company LIW Information Request

I called Mr. McBee (Double Eagle) and Mr. Swientoniowski (Houghton Fluid Technology & Service Worldwide) today as a followup to our visit yesterday and, based on those conversations, am asking for additional information to allow me to complete my LIW review of the facility.

The company appears responsive to my requests and I would expect a response back this week. Otherwise, I will formalize the request within a letter to the facility.

>>> <Campbell.Duncan@epamail.epa.gov> 02/28/06 3:14 PM >>>  
What's going on?

After reading the two e-mails I'm guessing that the MDEQ phones were ringing sometime after we talked this morning? Is this Double Eagle being proactive and having found a degree of urgency?



James Day  
<dayja@michigan.gov>  
02/28/2006 02:05 PM

To: *McBee D descc.com*  
Subject: Double Eagle Steel Coating Company LIW Information Request

Pursuant to our telephone conversation today, I am requesting waste characterization data for each of the following Liquid Industrial Waste (LIW) waste streams generated by Double Eagle Steel Coating Company:

- TANK 43844 →*  
*DODR 107 →*
- 1) Tank 12 overfill shipments off site,
  - 2) LIW shipments related to "non-overfill" maintenance activities within the sodium hydroxide process area, and
  - 3) LIW shipments related to filter press generated filter cake proximate to the electro-galvanizing process. *→ some chrome*

✓ Also, please provide to my attention copies of the most recent manifests for each of the above LIW waste streams.

✓ Also, please provide to my attention a representative MSDS for the sodium hydroxide process bath.

Thank you and contact me with questions.

James A. Day  
Environmental Quality Analyst  
Michigan Department of Environmental Quality  
Waste and Hazardous Materials Division  
27700 Donald Court  
Warren, Michigan 48092  
Phone: 586-753-3835  
Fax: 586-753-3831  
dayja@michigan.gov

**McBee, Chris**

**From:** James Day [dayja@michigan.gov]  
**Sent:** Tuesday, February 28, 2006 3:06 PM  
**To:** mcbee@descc.com  
**Subject:** Double Eagle Steel Coating Company LIW Information Request

Pursuant to our telephone conversation today, I am requesting waste characterization data for each of the following Liquid Industrial Waste (LIW) waste streams generated by Double Eagle Steel Coating Company:

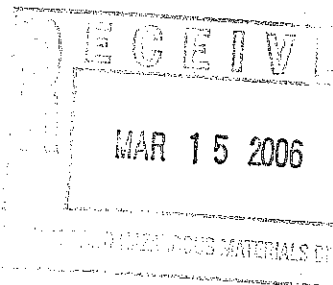
- 1) Tank 12 overfill shipments off site,
- 2) LIW shipments related to "non-overfill" maintenance activities within the sodium hydroxide process area, and
- 3) LIW shipments related to filter press generated filter cake proximate to the electro-galvanizing process.

Also, please provide to my attention copies of the most recent manifests for each of the above LIW waste streams.

Also, please provide to my attention a representative MSDS for the sodium hydroxide process bath.

Thank you and contact me with questions.

James A. Day  
Environmental Quality Analyst  
Michigan Department of Environmental Quality  
Waste and Hazardous Materials Division  
27700 Donald Court  
Warren, Michigan 48092  
Phone: 586-753-3835  
Fax: 586-753-3831  
dayja@michigan.gov





22345 Roethel Drive  
Novi, MI 48375  
248.344.1770  
Fax 248.344.2654



May 03, 2005

Christopher McBee  
DOUBLE EAGLE STEEL COATING COMPANY  
3000 Miller Road  
Dearborn, MI 48120-

Clayton Work Order No. 05040748

Reference:

Dear Christopher McBee:

Clayton Group Services received 1 sample on 4/19/2005 for the analyses presented in the following report.

Enclosed is a copy of the Chain-of-Custody record, acknowledging receipt of these samples. Please note that any unused portion of the samples will be discarded 30 days after the date of this report, unless you have requested otherwise.

This material is confidential and is intended solely for the person to whom it is addressed. If this is received in error, please contact the number provided below.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact a Client Services Representative at (800) 806-5887.

Sincerely,

A handwritten signature in cursive script, appearing to read "Karen Coonan".

Karen Coonan  
Client Services Representative

cc:

## CASE NARRATIVE

Date: 03-May-05

CLIENT: DOUBLE EAGLE STEEL COATING COMPANY

Project:

Work Order No 05040748

All quality control results associated with this sample set were within acceptable limits and/or do not adversely affect the reported results, unless otherwise noted below.

The Total Organic Halogens analysis was subcontracted to Lancaster Laboratories, in Lancaster, PA.  
The actual method used was EPA 9023.

# ANALYTICAL RESULTS

Date: 03-May-05

CLIENT: DOUBLE EAGLE STEEL COATING COMPANY

Client Sample ID: FILTER CAKE DE05001

Work Order No: 05040748

Tag Number:

Project:

Collection Date: 4/18/2005

Lab ID: 05040748-001A

Matrix: SOLID

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
<b>FLASHPOINT; METHOD EPA 1010 (MODIFIED)</b>							
Ignitability	>200	0		°F	1	4/25/2005	CLH
<b>PCBS BY GC; METHOD EPA 8082</b>							
Aroclor 1016	ND	330		µg/Kg	1	4/22/2005	BVP
Aroclor 1221	ND	330		µg/Kg	1	4/22/2005	BVP
Aroclor 1232	ND	330		µg/Kg	1	4/22/2005	BVP
Aroclor 1242	ND	330		µg/Kg	1	4/22/2005	BVP
Aroclor 1248	ND	330		µg/Kg	1	4/22/2005	BVP
Aroclor 1254	ND	330		µg/Kg	1	4/22/2005	BVP
Aroclor 1260	ND	330		µg/Kg	1	4/22/2005	BVP
<b>TOTAL ORGANIC HALOGENS; METHOD EPA 9076</b>							
Total Organic Halides (TOX)	1,900	90		mg/Kg-dry	1	4/28/2005	SUB
<b>PAINT FILTER LIQUIDS TEST; METHOD EPA 9095A</b>							
Free Liquid	Negative	0		Pos/Neg	1	5/2/2005	RAS
<b>PH, SOIL OR WASTE; METHOD EPA 9045C</b>							
pH	2.3	1.0		pH Units	1	4/27/2005 5:45:00 PM	RAS
<b>REACTIVE CYANIDE, EPA SW 846 CHAPTER 7.3.3.2</b>							
Reactive Cyanide	ND	0.10		mg/Kg	1	4/21/2005	HML
<b>REACTIVE SULFIDE; EPA SW 846 CHAPTER 7.3.4.2</b>							
Reactive Sulfide	ND	100		mg/Kg	1	4/21/2005	HML

Qualifiers:

- ND - Not Detected at the Reporting Limit (RL)
- J - Analyte detected below the Reporting Limit
- B - Analyte detected in the associated Method Blank
- \* - Value exceeds Maximum Contaminant Level

- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range
- T - Tentatively Identified Compound (TIC)

# ANALYTICAL RESULTS

Date: 03-May-05

CLIENT: DOUBLE EAGLE STEEL COATING COMPANY Client Sample ID: FILTER CAKE DE05001  
 Work Order No: 05040748 Tag Number:  
 Project: Collection Date: 4/18/2005  
 Lab ID: 05040748-001B Matrix: LEACHATE

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
ICP METALS;LEACHATE: METHOD EPA 1311/6010B							
Arsenic	ND	0.10		mg/L	1	4/26/2005	CAW
Barium	0.81	0.10		mg/L	1	4/26/2005	CAW
Cadmium	ND	0.050		mg/L	1	4/26/2005	CAW
Chromium	0.54	0.10		mg/L	1	4/26/2005	CAW
Lead	ND	0.10		mg/L	1	4/26/2005	CAW
Selenium	ND	0.20		mg/L	1	4/26/2005	CAW
Silver	ND	0.020		mg/L	1	4/26/2005	CAW
MERCURY; LEACHED: METHOD EPA 1311/7470A							
Mercury	ND	0.0010		mg/L	1	4/26/2005	RS

## Qualifiers:

ND - Not Detected at the Reporting Limit (RL).

J - Analyte detected below the Reporting Limit

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

T - Tentatively Identified Compound (TIC)

# Clayton Group Services

Date: 03-May-05

CLIENT: DOUBLE EAGLE STEEL COATING CO  
Work Order: 05040748  
Project:

## QC SUMMARY REPORT

Method Blank

Sample ID: MB-18715		Batch ID: 18715		Units: mg/L		Analysis Date: 04/26/2005				Prep Date: 04/26/2005	
Client ID:		Run ID: ME_PE3C_050426A				SeqNo: 767516					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.1									
Barium	ND	0.1									
Cadmium	ND	0.05									
Chromium	ND	0.1									
Lead	ND	0.1									
Selenium	ND	0.2									
Silver	ND	0.02									

Sample ID: MB-18716		Batch ID: 18716		Units: µg/L		Analysis Date: 04/26/2005				Prep Date: 04/26/2005	
Client ID:		Run ID: ME_CE5E_050426C				SeqNo: 767312					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.2									

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



CLIENT: DOUBLE EAGLE STEEL COATING CO  
 Work Order: 05040748  
 Project:

## QC SUMMARY REPORT

Method Blank

Sample ID: MB-18668		Batch ID: 18668		Units: µg/Kg		Analysis Date: 04/22/2005				Prep Date: 04/21/2005	
Client ID:		Run ID: PP_HP4D_050422A		SeqNo: 766014							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	330									
Aroclor 1221	ND	330									
Aroclor 1232	ND	330									
Aroclor 1242	ND	330									
Aroclor 1248	ND	330									
Aroclor 1254	ND	330									
Aroclor 1260	ND	330									
Surr: Decachlorobiphenyl	14	0	16.7	0	83.8	20.8	188	0			
Surr: Tetrachloro-m-xylene	12	0	16.7	0	71.9	6.8	140	0			

Sample ID: MB-R65740		Batch ID: R65740		Units: pH Units		Analysis Date: 04/27/2005 5:43:00 PM				Prep Date:	
Client ID:		Run ID: WC_OR17Q_050427A		SeqNo: 768181							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	6.2	1									

Sample ID: MB-R65477		Batch ID: R65477		Units: mg/Kg		Analysis Date: 04/21/2005				Prep Date:	
Client ID:		Run ID: WC_PE10J_050421A		SeqNo: 765392							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Cyanide	ND	0.1									

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: DOUBLE EAGLE STEEL COATING CO  
Work Order: 05040748  
Project:

## QC SUMMARY REPORT

Method Blank

Sample ID: MB-R65476	Batch ID: R65476	Units: mg/Kg	Analysis Date: 04/21/2005	Prep Date:							
Client ID:	Run ID: WC_MA7G_050421A	SeqNo: 765383									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Sulfide	ND	100									

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Clayton Group Services

Date: 03-May-05

CLIENT: DOUBLE EAGLE STEEL COATING CO

Work Order: 05040748

Project:

## QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: LCS-18715		Batch ID: 18715		Units: mg/L		Analysis Date: 04/26/2005			Prep Date: 04/26/2005		
Client ID:		Run ID: ME_PE3C_050426A		SeqNo: 767517							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	4.88	0.1	5	0	97.6	84	113	0			
Barium	4.88	0.1	5	0	97.6	87.6	112	0			
Cadmium	4.87	0.05	5	0	97.4	86.9	113	0			
Chromium	4.79	0.1	5	0	95.8	84.6	112	0			
Lead	4.8	0.1	5	0	96	86.2	111	0			
Selenium	4.97	0.2	5	0	99.4	82	114	0			
Silver	4.97	0.02	5	0	99.4	77.9	118	0			

Sample ID: LCS-18716		Batch ID: 18716		Units: µg/L		Analysis Date: 04/26/2005			Prep Date: 04/26/2005		
Client ID:		Run ID: ME_CE5E_050426C		SeqNo: 767313							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.76	0.2	2	0	88	75.3	124	0			

Sample ID: LCS-18668		Batch ID: 18668		Units: µg/Kg		Analysis Date: 04/22/2005				Prep Date: 04/21/2005	
Client ID:		Run ID: PP_HP4D_050422A				SeqNo: 766015					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	225.3	330	333	0	67.7	28.9	142	0			
Aroclor 1260	250.7	330	333	0	75.3	38.7	148	0			J
Surr: Decachlorobiphenyl	14	0	16.7	0	83.8	20.8	188	0			J
Surr: Tetrachloro-m-xylene	10.33	0	16.7	0	61.9	6.8	140	0			

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: DOUBLE EAGLE STEEL COATING CO  
Work Order: 05040748  
Project:

QC SUMMARY REPORT  
Laboratory Control Spike

Sample ID: LCS-R65477		Batch ID: R65477		Units: mg/Kg		Analysis Date: 04/21/2005				Prep Date:	
Client ID:		Run ID: WC_PE10J_050421A				SeqNo: 765393					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Cyanide	6.8	0.1	100	0	6.8	1.41	13.3	0			

Sample ID: LCS-R65476		Batch ID: R65476		Units: mg/Kg		Analysis Date: 04/21/2005			Prep Date:		
Client ID:		Run ID: WC_MA7G_050421A		SeqNo: 765384							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Sulfide	70.52	100	91.38	0	77.2	4.19	106	0			J

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Clayton Group Services

Date: 03-May-05

CLIENT: DOUBLE EAGLE STEEL COATING CO  
Work Order: 05040748  
Project:

## QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 05040691-002B-MS		Batch ID: 18715		Units: mg/L		Analysis Date: 04/26/2005				Prep Date: 04/26/2005	
Client ID:		Run ID: ME_PE3C_050426A		SeqNo: 767520							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	4.93	0.1	5	0	98.6	82.5	120	0			
Barium	5.23	0.1	5	0.314	98.3	81.1	116	0			
Cadmium	4.89	0.05	5	0	97.8	81.6	115	0			
Chromium	4.87	0.1	5	0	97.4	80.9	112	0			
Lead	4.83	0.1	5	0	96.6	80.5	113	0			
Selenium	4.92	0.2	5	0	98.4	81.3	120	0			
Silver	4.99	0.02	5	0	99.8	70.1	123	0			

Sample ID: 05040691-002B-MSD		Batch ID: 18715		Units: mg/L		Analysis Date: 04/26/2005			Prep Date: 04/26/2005		
Client ID:		Run ID: ME_PE3C_050426A		SeqNo: 767521							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	4.89	0.1	5	0	97.8	82.5	120	4.93	0.815	8.61	
Barium	5.17	0.1	5	0.314	97.1	81.1	116	5.23	1.15	6.14	
Cadmium	4.78	0.05	5	0	95.6	81.6	115	4.89	2.28	5.93	
Chromium	4.83	0.1	5	0	96.6	80.9	112	4.87	0.825	5.53	
Lead	4.74	0.1	5	0	94.8	80.5	113	4.83	1.88	5.79	
Selenium	4.94	0.2	5	0	98.8	81.3	120	4.92	0.406	10.6	
Silver	5.02	0.02	5	0	100	70.1	123	4.99	0.599	10.2	

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



CLIENT: DOUBLE EAGLE STEEL COATING CO

Work Order: 05040748

Project:

## QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 05040978-001A-MS		Batch ID: 18716		Units: µg/L		Analysis Date: 04/26/2005			Prep Date: 04/26/2005		
Client ID:		Run ID: ME_CE5E_050426C				SeqNo: 767322					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.89	0.2	2	0	94.5	69.7	126	0			

Sample ID: 05040978-001A-MSD		Batch ID: 18716		Units: µg/L		Analysis Date: 04/26/2005			Prep Date: 04/26/2005		
Client ID:		Run ID: ME_CE5E_050426C				SeqNo: 767323					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.81	0.2	2	0	90.5	69.7	126	1.89	4.32	21.8	

Sample ID: 05040748-001AMS		Batch ID: 18668		Units: µg/Kg		Analysis Date: 04/22/2005			Prep Date: 04/21/2005		
Client ID: FILTER CAKE DE05001		Run ID: PP_HP4D_050422A		SeqNo: 766019							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	227.7	330	333	0	68.4	13	148	0			
Aroclor 1260	270.7	330	333	0	81.3	19.1	155	0			J
Surr: Decachlorobiphenyl	15	0	16.7	0	89.8	8.72	160	0			J
Surr: Tetrachloro-m-xylene	9.667	0	16.7	0	57.9	0.5	132	0			

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: DOUBLE EAGLE STEEL COATING CO

Work Order: 05040748

Project:

## QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Sample ID: 05040748-001AMSD

Batch ID: 18668

Units: µg/Kg

Analysis Date: 04/22/2005

Prep Date: 04/21/2005

Client ID: FILTER CAKE DE05001

Run ID: PP\_HP4D\_050422A

SeqNo: 766020

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	225.7	330	333	0	67.8	13	148	227.7	0.882	75.2	J
Aroclor 1260	266.7	330	333	0	80.1	19.1	155	270.7	1.49	70.3	J
Surr: Decachlorobiphenyl	14.67	0	16.7	0	87.8	8.72	160	15	2.25	0	
Surr: Tetrachloro-m-xylene	10.33	0	16.7	0	61.9	0.5	132	9.667	6.67	0	

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Clayton Group Services

Date: 03-May-05

CLIENT: DOUBLE EAGLE STEEL COATING CO  
 Work Order: 05040748  
 Project:  
 Analysis: PCBs; Soil: Method 8082

## QC SUMMARY REPORT SURROGATE RECOVERIES

Sample ID	CL10BZ2	XYL2456CLM						
05040630-001A	71.9	63.9						
05040641-008A	67.9	67.9						
05040748-001A	75.8	65.9						
05040748-001AMS	89.8	57.9						
05040748-001AMS	87.8	61.9						
05040778-001A	39.9	35.9						
05040778-002A	55.9	47.9						
LCS-18668	83.8	61.9						
MB-18668	83.8	71.9						

Acronym	Surrogate	QC Limits
CL10BZ2	= Decachlorobiphenyl	8.72-160
XYL2456CLM	= Tetrachloro-m-xylene	0.5-132

\* Surrogate recovery outside acceptance limits



Date Results Requested: \_\_\_\_\_

Rush Charges Authorized? ☐ Yes ☐ No

☐ Fax or ☐ E-mail Results

E-mail address: \_\_\_\_\_

For Clayton Use Only  
Clayton Lab Project No.

05040748

[illegible]

Please return completed form and samples to one of the Clayton Group Services, Inc. labs listed below:

**Seattle Regional Lab**  
4636 E. Marginal Way S., Suite 215  
Seattle, WA 98134  
(800) 568-7755  
(206) 763-7364  
FAX (206) 763-4189

**DISTRIBUTION:**  
 White = Clayton Laboratory  
 Yellow = Clayton Accounting  
 Pink = Client Copy

9/97 20K

22345 Roethel Drive  
Novi, MI 48375  
248.344.1770  
Fax 248.344.2654



May 11, 2005

Christopher McBee  
DOUBLE EAGLE STEEL COATING COMPANY  
3000 Miller Road  
Dearborn, MI 48120-

Clayton Work Order No. 05050236

Reference: Filter Cake

Dear Christopher McBee:

Clayton Group Services received 1 sample on 5/6/2005 for the analyses presented in the following report.

Enclosed is a copy of the Chain-of-Custody record, acknowledging receipt of these samples. Please note that any unused portion of the samples will be discarded 30 days after the date of this report, unless you have requested otherwise.

This material is confidential and is intended solely for the person to whom it is addressed. If this is received in error, please contact the number provided below.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact a Client Services Representative at (800) 806-5887.

Sincerely,

A handwritten signature in cursive script that reads "Karen Coonan".

Karen Coonan  
Client Services Representative

cc:



**CASE NARRATIVE**

Date: 11-May-05

---

**CLIENT:** DOUBLE EAGLE STEEL COATING COMPANY**Project:** Filter Cake**Work Order No** 05050236

---

Unless otherwise noted below, all quality control results associated with this sample set were within acceptable limits and/or do not adversely affect the reported results.

Analytical Comments for Method 8270L, sample LCS-18910: Please note that the laboratory control spike (LCS ) recovery of one or more analytes was above statistical limits. The matrix spike/duplicate (MS/MSD) passed the LCS criteria. The results are not affected.

# ANALYTICAL RESULTS



Date: 11-May-05

CLIENT: DOUBLE EAGLE STEEL COATING COMPANY

Client Sample ID: FILTER CAKE

Work Order No: 05050236

Tag Number:

Project: Filter Cake

Collection Date: 5/6/2005 12:00:00 PM

Lab ID: 05050236-001B

Matrix: LEACHATE

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
<b>GC/MS TCLP VOLATILES; METHOD EPA 1311/8260B</b>							
Benzene	ND	0.20		mg/L	200	5/10/2005 8:31:00 PM	DRS
2-Butanone	ND	4.0		mg/L	200	5/10/2005 8:31:00 PM	DRS
Carbon tetrachloride	ND	0.20		mg/L	200	5/10/2005 8:31:00 PM	DRS
Chlorobenzene	ND	0.20		mg/L	200	5/10/2005 8:31:00 PM	DRS
Chloroform	ND	0.20		mg/L	200	5/10/2005 8:31:00 PM	DRS
1,2-Dichloroethane	ND	0.20		mg/L	200	5/10/2005 8:31:00 PM	DRS
1,1-Dichloroethene	ND	0.20		mg/L	200	5/10/2005 8:31:00 PM	DRS
Tetrachloroethene	ND	0.20		mg/L	200	5/10/2005 8:31:00 PM	DRS
Trichloroethene	ND	0.20		mg/L	200	5/10/2005 8:31:00 PM	DRS
Vinyl chloride	ND	0.20		mg/L	200	5/10/2005 8:31:00 PM	DRS
<b>GC/MS TCLP SEMIVOLATILES; METHOD EPA 1311/8270C</b>							
1,4-Dichlorobenzene	ND	0.025		mg/L	0.5	5/10/2005 9:06:00 PM	LL
2,4-Dinitrotoluene	ND	0.025		mg/L	0.5	5/10/2005 9:06:00 PM	LL
Hexachlorobenzene	ND	0.025		mg/L	0.5	5/10/2005 9:06:00 PM	LL
Hexachlorobutadiene	ND	0.025		mg/L	0.5	5/10/2005 9:06:00 PM	LL
Hexachloroethane	ND	0.025		mg/L	0.5	5/10/2005 9:06:00 PM	LL
Nitrobenzene	ND	0.025		mg/L	0.5	5/10/2005 9:06:00 PM	LL
Pentachlorophenol	ND	0.10		mg/L	0.5	5/10/2005 9:06:00 PM	LL
Pyridine	ND	0.025		mg/L	0.5	5/10/2005 9:06:00 PM	LL
2,4,5-Trichlorophenol	ND	0.25		mg/L	0.5	5/10/2005 9:06:00 PM	LL
2,4,6-Trichlorophenol	ND	0.025		mg/L	0.5	5/10/2005 9:06:00 PM	LL
Cresols, Total	ND	0.25		mg/L	0.5	5/10/2005 9:06:00 PM	LL

Qualifiers: ND - Not Detected at the Reporting Limit (RL).  
 J - Analyte detected below the Reporting Limit  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range  
 T - Tentatively Identified Compound (TIC)

# Clayton Group Services

Date: 11-May-05

CLIENT: DOUBLE EAGLE STEEL COATING CO  
Work Order: 05050236  
Project: Filter Cake

## QC SUMMARY REPORT

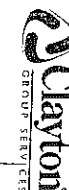
Method Blank

Sample ID: 05050000-BLK6		Batch ID: R66313		Units: mg/L		Analysis Date: 5/10/2005 5:56:00 PM				Prep Date:	
Client ID:		Run ID: MS_HP10J_050506B				SeqNo: 774702					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.02									
2-Butanone	ND	0.4									
Carbon tetrachloride	ND	0.02									
Chlorobenzene	ND	0.02									
Chloroform	ND	0.02									
1,2-Dichloroethane	ND	0.02									
1,1-Dichloroethene	ND	0.02									
Tetrachloroethene	ND	0.02									
Trichloroethene	ND	0.02									
Vinyl chloride	ND	0.02									
Surr: 4-Bromofluorobenzene	0.9912	0	1	0	99.1	82.7	115	0			
Surr: 1,2-Dichloroethane-d4	0.9998	0	1	0	100	74.4	120	0			
Surr: Toluene-d8	0.9814	0	1	0	98.1	81.8	118	0			
Surr: Pentafluorobenzene	1.04	0	1	0	104	81.9	122	0			

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



CLIENT: DOUBLE EAGLE STEEL COATING CO  
 Work Order: 05050236  
 Project: Filter Cake

## QC SUMMARY REPORT

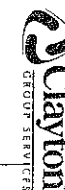
Method Blank

Sample ID: MB-18910	Batch ID: 18910	Units: mg/L	Analysis Date: 5/10/2005 11:04:00 PM					Prep Date: 5/10/2005			
Client ID:	Run ID: MS_HP5E_050510B	SeqNo: 774616									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.025									
2,4-Dinitrotoluene	ND	0.025									
Hexachlorobenzene	ND	0.025									
Hexachlorobutadiene	ND	0.025									
Hexachloroethane	ND	0.025									
Nitrobenzene	ND	0.025									
Pentachlorophenol	ND	0.1									
Pyridine	ND	0.025									
2,4,5-Trichlorophenol	ND	0.25									
2,4,6-Trichlorophenol	ND	0.025									
Cresols, Total	ND	0.25									
Surr: 2,4,6-Tribromophenol	0.8274	0	0.75	0	110	22.2	123	0			
Surr: 2-Fluorobiphenyl	0.4705	0	0.5	0	94.1	21.9	111	0			
Surr: 2-Fluorophenol	0.6192	0	0.75	0	82.6	7.54	91.2	0			
Surr: Nitrobenzene-d5	0.4479	0	0.5	0	89.6	24.1	102	0			
Surr: Phenol-d5	0.65	0	0.75	0	86.7	1.91	101	0			
Surr: Terphenyl-d14	0.6551	0	0.5	0	131	33.5	126	0			S

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



CLIENT: DOUBLE EAGLE STEEL COATING CO  
 Work Order: 05050236  
 Project: Filter Cake

# QC SUMMARY REPORT

Method Blank

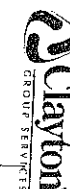
Method Blank

Sample ID: MB-18910 FL1	Batch ID: 18910	Units: mg/L	Analysis Date: 5/10/2005 5:09:00 PM				Prep Date: 5/10/2005				
Client ID:		Run ID: MS_HP5E_050510B	SeqNo: 774607								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.025									
2,4-Dinitrotoluene	ND	0.025									
Hexachlorobenzene	ND	0.025									
Hexachlorobutadiene	ND	0.025									
Hexachloroethane	ND	0.025									
Nitrobenzene	ND	0.025									
Pentachlorophenol	ND	0.025									
Pyridine	ND	0.1									
2,4,5-Trichlorophenol	ND	0.025									
2,4,6-Trichlorophenol	ND	0.25									
Cresols, Total	ND	0.025									
Surr: 2,4,6-Tribromophenol	ND	0.25									
Surr: 2-Fluorobiphenyl	0.725	0	0.75	0	96.7	22.2	123	0			
Surr: 2-Fluorophenol	0.408	0	0.5	0	81.6	21.9	111	0			
Surr: Nitrobenzene-d5	0.5405	0	0.75	0	72.1	7.54	91.2	0			
Surr: Phenol-d5	0.4008	0	0.5	0	80.2	24.1	102	0			
Surr: Terphenyl-d14	0.5353	0	0.75	0	71.4	1.91	101	0			
	0.5256	0	0.5	0	105	33.5	126	0			

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank





# Clayton Group Services

Date: 11-May-05

CLIENT: DOUBLE EAGLE STEEL COATING CO  
Work Order: 05050236  
Project: Filter Cake

## QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: LCS-18910

Batch ID: 18910

Units: mg/L

Analysis Date: 5/10/2005 5:49:00 PM

Prep Date: 5/10/2005

Client ID:

Run ID: MS\_HP5E\_050510B

SeqNo: 774608

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	0.3343	0.025	0.5	0	66.9	20.2	68.6	0			
2,4-Dinitrotoluene	0.5467	0.025	0.5	0	109	48.9	115	0			
Hexachlorobenzene	0.4943	0.025	0.5	0	98.9	42.9	124	0			
Hexachlorobutadiene	0.4283	0.025	0.5	0	85.7	11.2	82.6	0			
Hexachloroethane	0.3874	0.025	0.5	0	77.5	12.1	71	0			S
Nitrobenzene	0.4534	0.025	0.5	0	90.7	28.5	94	0			S
Pentachlorophenol	0.4759	0.1	0.5	0	95.2	20.4	122	0			
Pyridine	0.2898	0.025	0.5	0	58	0.5	66.2	0			
2,4,5-Trichlorophenol	0.4814	0.25	0.5	0	96.3	31.8	103	0			
2,4,6-Trichlorophenol	0.4899	0.025	0.5	0	98	32.2	100	0			
Cresols, Total	0.831	0.25	1	0	83.1	32.5	94	0			
Surr: 2,4,6-Tribromophenol	0.911	0	0.75	0	121	22.2	123	0			
Surr: 2-Fluorobiphenyl	0.5042	0	0.5	0	101	21.9	111	0			
Surr: 2-Fluorophenol	0.5504	0	0.75	0	73.4	7.54	91.2	0			
Surr: Nitrobenzene-d5	0.4539	0	0.5	0	90.8	24.1	102	0			
Surr: Phenol-d5	0.5871	0	0.75	0	78.3	1.91	101	0			
Surr: Terphenyl-d14	0.6403	0	0.5	0	128	33.5	126	0			

Please note that the laboratory control spike (LCS) recovery of

The recovery of the laboratory control spike (LCS) is

Please note that the laboratory control spike (LCS) recovery of one or more analytes was above statistical limits. The matrix spike/duplicate (MS/MSD) passed the LCS criteria. The results are not affected.

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



CLIENT: DOUBLE EAGLE STEEL COATING CO  
 Work Order: 05050236  
 Project: Filter Cake

## QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Surr: Pentafluorobenzene	47.77	0	50	0	95.5	81.7	135	52.41	9.26	6.63	R
--------------------------	-------	---	----	---	------	------	-----	-------	------	------	---

Sample ID: 05050236-001BMS		Batch ID: 18910		Units: mg/L		Analysis Date: 5/10/2005 9:45:00 PM			Prep Date: 5/10/2005		
Client ID: FILTER CAKE		Run ID: MS_HP5E_050510B					SeqNo: 774614				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	0.275	0.025	0.5	0	55	0.5	123	0			
2,4-Dinitrotoluene	0.4528	0.025	0.5	0	90.6	12.3	142	0			
Hexachlorobenzene	0.4274	0.025	0.5	0	85.5	0.5	157	0			
Hexachlorobutadiene	0.3262	0.025	0.5	0	65.2	0.5	122	0			
Hexachloroethane	0.3026	0.025	0.5	0	60.5	2.4	109	0			
Nitrobenzene	0.3543	0.025	0.5	0	70.9	15.8	125	0			
Pentachlorophenol	0.4315	0.1	0.5	0	86.3	0.5	156	0			
Pyridine	0.2477	0.025	0.5	0	49.5	0.5	110	0			
2,4,5-Trichlorophenol	0.406	0.25	0.5	0	81.2	5.88	137	0			
2,4,6-Trichlorophenol	0.3786	0.025	0.5	0	75.7	3.3	140	0			
Cresols, Total	0.6342	0.25	1	0	63.4	7.02	134	0			
Surr: 2,4,6-Tribromophenol	0.7529	0	0.75	0	100	22.2	123	0			
Surr: 2-Fluorobiphenyl	0.366	0	0.5	0	73.2	21.9	111	0			
Surr: 2-Fluorophenol	0.4371	0	0.75	0	58.3	7.54	91.2	0			
Surr: Nitrobenzene-d5	0.3448	0	0.5	0	69	24.1	102	0			
Surr: Phenol-d5	0.4696	0	0.75	0	62.6	1.91	101	0			
Surr: Terphenyl-d14	0.5467	0	0.5	0	109	33.5	126	0			

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: DOUBLE EAGLE STEEL COATING CO  
 Work Order: 05050236  
 Project: Filter Cake

## QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Sample ID: 05050236-001BMSD	Batch ID: 18910	Units: mg/L	Analysis Date: 5/10/2005 10:24:00 PM				Prep Date: 5/10/2005				
Client ID: FILTER CAKE	Run ID: MS_HP5E_050510B	SeqNo: 774615									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	0.2262	0.025	0.5	0	45.2	0.5	123	0.275	19.5	58.3	
2,4-Dinitrotoluene	0.4153	0.025	0.5	0	83.1	12.3	142	0.4528	8.63	56.4	
Hexachlorobenzene	0.3955	0.025	0.5	0	79.1	0.5	157	0.4274	7.77	59.7	
Hexachlorobutadiene	0.2518	0.025	0.5	0	50.4	0.5	122	0.3262	25.7	61.6	
Hexachloroethane	0.2473	0.025	0.5	0	49.5	2.4	109	0.3026	20.1	70.2	
Nitrobenzene	0.2854	0.025	0.5	0	57.1	15.8	125	0.3543	21.5	56.9	
Pentachlorophenol	0.426	0.1	0.5	0	85.2	0.5	156	0.4315	1.28	71	
Pyridine	0.2222	0.025	0.5	0	44.4	0.5	110	0.2477	10.8	98.6	
2,4,5-Trichlorophenol	0.3051	0.25	0.5	0	61	5.88	137	0.406	28.4	54.5	
2,4,6-Trichlorophenol	0.2939	0.025	0.5	0	58.8	3.3	140	0.3786	25.2	54	
Cresols, Total	0.5155	0.25	1	0	51.5	7.02	134	0.6342	20.7	25	
Surr: 2,4,6-Tribromophenol	0.6738	0	0.75	0	89.8	22.2	123	0.7529	11.1	24.9	
Surr: 2-Fluorobiphenyl	0.285	0	0.5	0	57	21.9	111	0.366	24.9	46.2	
Surr: 2-Fluorophenol	0.3526	0	0.75	0	47	7.54	91.2	0.4371	21.4	50	
Surr: Nitrobenzene-d5	0.2827	0	0.5	0	56.5	24.1	102	0.3448	19.8	64.2	
Surr: Phenol-d5	0.3843	0	0.75	0	51.2	1.91	101	0.4696	20	32	
Surr: Terphenyl-d14	0.5321	0	0.5	0	106	33.5	126	0.5467	2.72	22.8	

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



CLIENT: DOUBLE EAGLE STEEL COATING CO  
Work Order: 05050236  
Project: Filter Cake  
Analysis: Volatile Organics; Leached: Method 8260B

## QC SUMMARY REPORT SURROGATE RECOVERIES

Sample ID	BR4FBZ	BZMED8	DCA12D4				
05050000-BLK6	99.1	98.1	100				
05050236-001B	92.8	96.0	101				

Acronym	Surrogate	QC Limits
BR4FBZ	= Pentafluorobenzene	81.7-135
BZMED8	= 4-Bromofluorobenzene	87.2-110
DCA12D4	= Toluene-d8	90-111
	= 1,2-Dichloroethane-d4	80.5-119

\* Surrogate recovery outside acceptance limits

CLIENT: DOUBLE EAGLE STEEL COATING CO  
 Work Order: 05050236  
 Project: Filter Cake  
 Analysis: Semivolatile Organics; Leached: Method 8270C

## QC SUMMARY REPORT SURROGATE RECOVERIES

Sample ID	NO2BZD5	PH246BR	PH2F	PHEN2F	PHEND14	PHENOLD5		
05050194-002B	126 *	231 *	66.4	70.9	100	129 *		
05050194-003B	55.5	81.3	48.6	56.4	103	48.5		
05050199-006B	50.6	88.0	46.6	53.7	91.1	50.6		
05050199-007B	57.9	122	50.0	62.1	132 *	52.1		
05050236-001B	55.4	65.2	47.5	52.3	97.6	50.1		
05050236-001BMS	69.0	100	58.3	73.2	109	62.6		
05050236-001BMS	56.5	89.8	47.0	57.0	106	51.2		
LCS-18910	90.8	121	73.4	101	128 *	78.3		
MB-18910	89.6	110	82.6	94.1	131 *	86.7		
MB-18910 FL1	80.2	96.7	72.1	81.6	105	71.4		

Acronym	Surrogate	QC Limits
NO2BZD5	= Nitrobenzene-d5	24.1-102
PH246BR	= 2,4,6-Tribromophenol	22.2-123
PH2F	= 2-Fluorophenol	7.54-91.2
PHEN2F	= 2-Fluorobiphenyl	21.9-111
PHEND14	= Terphenyl-d14	33.5-126
PHENOLD5	= Phenol-d5	1.91-101

\* Surrogate recovery outside acceptance limits





# REQUEST FOR LABORATORY ANALYTICAL SERVICES

## IMPORTANT

Date Results Requested: 5/11/05  
Rush Charges Authorized? ☐ Yes ☐ No  
☐ Fax or ☒ E-mail Results  
E-mail address:

Page \_\_\_\_ of \_\_\_\_

For Clayton Use Only  
Clayton Lab Project No.

05050236

<b>REPORT RESULTS TO</b>	Name	Client Job No.	Purchase Order No.																	
	Company	Dept.	Name																	
	Mailing Address		Company	Dept.																
	City, State, Zip		Address																	
	Telephone No.	FAX No.	City, State, Zip																	
Special instructions and/or specific regulatory requirements: (method, limit of detection, etc.)		Samples are: (check if applicable) <input type="checkbox"/> Drinking Water <input type="checkbox"/> Groundwater <input type="checkbox"/> Wastewater																		
* Explanation of Preservative		ANALYSIS REQUESTED (Enter an 'X' in the box below to indicate request. Enter a 'P' if Preservative added.)																		
CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/MEDIA	AIR VOLUME (specify units)	Number of Containers	FOR LAB USE ONLY														
FILTER cake	5/6	12:00	7<111)			X	X													
Collected by: C. Miller		(print)		Collector's Signature:																
<b>CHAIN OF CUSTODY</b>	Relinquished by: C. Miller	Date/Time: 5/6/05	Received by: Dan		Date/Time: 5/6/05															
	Relinquished by:	Date/Time:	Received by:		Date/Time:															
	Method of Shipment:	Received at Lab by: Dan		Date/Time: 5/6/05																
	Authorized by: C. Miller	Date: 5/6/05	Sample Condition Upon Receipt: <input checked="" type="checkbox"/> Acceptable <input type="checkbox"/> Other (explain)		212															

Please return completed form and samples to one of the Clayton Group Services, Inc. labs listed below:

**Detroit Regional Lab**  
22345 Roethel Drive  
Novi, MI 48375  
(800) 806-5887  
(248) 344-1770  
FAX (248) 344-2555

**Atlanta Regional Lab**  
3380 Chastain Meadows Parkway, Suite 300  
Kennesaw, GA 30144  
(800) 252-9919  
(770) 499-7500  
FAX (770) 423-4990

**Seattle Regional Lab**  
4636 E. Marginal Way S., Suite 215  
Seattle, WA 98134  
(800) 568-7755  
(206) 763-7364  
FAX (206) 763-4189

**DISTRIBUTION:**  
White = Clayton Laboratory  
Yellow = Clayton Accounting  
Pink = Client Copy

McBee, Chris

From: James Day [dayja@michigan.gov]  
Sent: Tuesday, February 28, 2006 3:06 PM  
To: mcbee@desc.com  
Subject: Double Eagle Steel Coating Company LIW Information Request

Pursuant to our telephone conversation today, I am requesting waste characterization data for each of the following Liquid Industrial Waste (LIW) waste streams generated by Double Eagle Steel Coating Company:

- 1) Tank 12 overfill shipments off site,
- 2) LIW shipments related to "non-overfill" maintenance activities within the sodium hydroxide process area, and
- 3) LIW shipments related to filter press generated filter cake proximate to the electro-galvanizing process.

Also, please provide to my attention copies of the most recent manifests for each of the above LIW waste streams.

Also, please provide to my attention a representative MSDS for the sodium hydroxide process bath.

Thank you and contact me with questions.

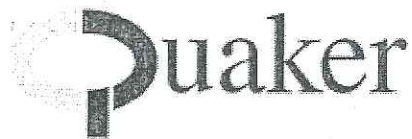
James A. Day  
Environmental Quality Analyst  
Michigan Department of Environmental Quality  
Waste and Hazardous Materials Division  
27700 Donald Court  
Warren, Michigan 48092  
Phone: 586-753-3835  
Fax: 586-753-3831  
dayja@michigan.gov

James -  
note there is no single MSDS for the process bath. There are two main ingredients. MSDS's for those materials are included.

Chris McBee

The process bath is approximately  
15% Sodium Hydroxide and 0.5% Formula  
503-20.

These materials are manufactured  
specifically for our use.  
CM



## Material Safety Data Sheet

Print date: 04/21/2005

Version: 1

Revision date: 04/21/2005

### 1. COMPANY AND PRODUCT IDENTIFICATION

Product code: 014043-01  
Product name: **FORMULA ® 503 20**

**Supplier:**  
Quaker Chemical Corporation  
Quaker Park One  
901 Hector Street  
Conshohocken, PA 19428  
610-832-4000  
E-mail: she@quakerchem.com

**Emergency telephone number:**  
\* 24 HOUR TRANSPORTATION:  
\*\*CHEMTREC: 1-800-424-9300  
703-527-3887 (Call collect outside of US)  
\* 24 HOUR EMERGENCY HEALTH & SAFETY:  
\*\*QUAKER CHEMICAL CORPORATION: (800) 523-7010(  
Within US only)  
Outside of US call (703) 527-3887

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

#### HAZARDOUS COMPONENTS

Components	Weight %	CAS No.	OSHA Ceiling Limits	OSHA TWA (final):	ACGIH Ceiling Limits	ACGIH Exposure Limits:	Vendor Exposure Limits:
Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)-w-hydroxy-	20 - 30%	9016-45-9		NA		None	

### 3. HAZARDS IDENTIFICATION

#### Emergency Overview

Irritating to eyes.  
Irritating to skin.  
May cause irritation of respiratory tract.  
May be harmful if swallowed.

**Principle routes of exposure:** Eyes, skin and inhalation.

**Signal word:** WARNING

**Eye contact:** Irritating to eyes.

**Skin contact:** Prolonged and/or repeated contact may cause irritation and redness.

**Inhalation:** May cause irritation of respiratory tract.

**Ingestion:** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Physico-chemical properties: No hazards resulting from material as supplied.

#### 4. FIRST AID MEASURES

**General advice:** If symptoms persist, call a physician.

**Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

**Skin contact:** Rinse immediately with plenty of water for at least 15 minutes

**Ingestion:** If swallowed, seek medical advice immediately and show this container or label. Never give anything by mouth to an unconscious person.

**Inhalation:** Move to fresh air in case of accidental inhalation of vapors. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician.

**Notes to physician:** Treat symptomatically.

**Medical condition aggravated by exposure:** Dermatitis.

#### 5. FIRE-FIGHTING MEASURES

**Flash point (°C):** Not applicable      **Flash point (°F):** Not applicable      **Flash Point Method:** Not applicable

**Flammable limits in air - upper (%):** Not determined      **Flammable limits in air - lower (%):** Not determined

**Suitable extinguishing media:** Use dry chemical, CO<sub>2</sub>, water spray or 'alcohol' foam.

**Unusual hazards:** None known

**Special protective equipment for fire-fighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**Specific methods:** Water mist may be used to cool closed containers.

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Ensure adequate ventilation.

**Environmental precautions:** Do not flush into surface water or sanitary sewer system.

**Methods for cleaning up:** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

#### 7. HANDLING AND STORAGE

##### Handling

**Technical measures/precautions:** Provide sufficient air exchange and/or exhaust in work rooms.

**Safe handling advice:** In case of insufficient ventilation, wear suitable respiratory equipment.

### Storage

Technical measures/storage conditions: Store at room temperature in the original container

Incompatible products: strong oxidizing agents

Safe storage temperature: 40-100 ° F

Shelf life: 6 months

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components	ACGIH Ceiling Limits	ACGIH Exposure Limits:	OSHA Ceiling Limits	OSHA TWA (final):	NIOSH - Pocket Guide - TWAs:	Vendor Exposure Limits:
Poly(oxy-1,2-ethanediyl), a- (nonylphenyl)-w-hydroxy-		None		NA	None	None

Engineering measures: Ensure adequate ventilation.

### Personal Protective Equipment

General: Eye Wash and Safety Shower

Respiratory protection: If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, a certified respirator that will protect against organic vapor must be worn.

Hand protection: Neoprene gloves

Skin and body protection: Usual safety precautions while handling the product will provide adequate protection against this potential effect.

Eye protection: Safety glasses with side-shields.

Hygiene measures: Avoid contact with skin, eyes and clothing.



## 9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical state: Liquid  
Color: Clear  
Odour: Slight, Soapy  
Boiling point/boiling range (°C): >100  
Boiling point/range (°F): >212  
Vapour pressure: Not determined  
Vapour density: Not determined  
VOC Content Product: Not determined  
Solubility: Completely soluble  
Evaporation rate: Not determined  
pH: 6.7

Decomposition temperature: Not determined  
 Auto-ignition temperature: Not determined  
 Density @ 15.5 ° C (g/cc) : 1.024  
 Bulk density @ 60 ° F (lb/gal): 8.55  
 Partition coefficient Not determined  
 (n-octanol/water, log Pow):  
Explosive properties:  
 - upper limit: No data available  
 - lower limit: No data available

## 10. STABILITY AND REACTIVITY

### Conditions to avoid:

None known

### Materials to avoid:

Strong oxidising agents

### Hazardous decomposition products:

None under normal use

### Stability:

Stable under recommended storage conditions.

### Polymerization:

Not applicable

## 11. TOXICOLOGICAL INFORMATION

No toxicological information is available on the product. Data obtained on components are summarized below.

Components	NTP:	IARC:	OSHA - Select Carcinogens	NIOSH - Selected LD50s and LC50s
Poly(oxy-1,2-ethanediyl), a- (nonylphenyl)-w-hydroxy-	This product does not contain any material shown to be a carcinogen by the National Toxicology Program (NTP).	This product does not contain any material shown to be a carcinogen by the International Agency for Research on Cancer (IARC).	This product does not contain any material shown to be a carcinogen by OSHA.	1310mg/kgOral LD50Rat 2mL/kgDermal LD50Rabbit 50g/kgOral LD50Mouse

## 12. ECOLOGICAL INFORMATION

Persistence and degradability: No information available

Mobility: No data available

Bioaccumulation: No data available



Ecotoxicity effects: No data available  
Aquatic toxicity: Not Determined

### 13. DISPOSAL CONSIDERATIONS

**Waste from residues/unused products:** Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

**Contaminated packaging:** Do not re-use empty containers

**Methods for cleaning up:** Take up mechanically and collect in suitable container for disposal.

### 14. TRANSPORT INFORMATION

**U. S. DEPARTMENT OF TRANSPORTATION:**

Proper shipping name: Not Regulated

Shipping Description:

**TDG (CANADA):**

Proper shipping name: Not Regulated

**IMDG/IMO:**

Proper shipping name: Not Regulated

**IATA/ICAO:**

Proper shipping name: Not Regulated

### 15. REGULATORY INFORMATION

**CLASSIFICATION AND LABELING**

**OSHA Hazard Communication Standard:** This product is considered to be hazardous under the OSHA Hazard Communication Standard.

**Canada - WHMIS Classification Information:** This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

**Product Classification:** Class D2B - Poisonous and Infectious Material: Other toxic effects - includes irritants, skin sensitizers and/ or chronic health effects

**Product Classification Graphic(s):**



**Component Classification Data:**

*Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)-w-hydroxy- - 9016-45-9*

WHMIS hazard class: D2B

Canadian National Pollution  
Inventory Data:

**U.S. REGULATIONS:**

SARA (311, 312) hazard class: This product possesses the following SARA Hazard Categories:

Immediate Health (Acute): Yes  
Delayed Health (Chronic): No  
Flammability: No  
Pressure: No  
Reactivity: No

RCRA Status Not Regulated

**STATE REGULATIONS (RTK):**

California Proposition 65 Status: No components are listed

**INVENTORY STATUS:**

United States TSCA - Sect. 8(b) Inventory: This product complies with TSCA

Canada DSL Inventory List - This product complies with DSL

EC No. Compliance has not been determined

**16. OTHER INFORMATION**

Sources of key data used to compile the data sheet: Material safety data sheets of the ingredients.

Reason for revision: New Format

Prepared by: Quaker Chemical Corporation -Safety, Health and Environmental Affairs Group - US

**HMIS classification:**

Health:  
2

Flammability:  
0

Reactivity:  
0

**NFPA rating:**

Health:  
2

Flammability:  
0

Reactivity:  
0

**Personal Protection:**

B

**Special:**

NA

\* Indicates possible chronic health effect

Personal protection recommendations should be reviewed by purchasers. Workplace conditions are important factors in specifying adequate protection.

**Disclaimer**

This product's safety information is provided to assist our customers in assessing compliance with safety/health/environmental regulations. The information contained herein is based on data available to us and is believed to be accurate. However, no warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of this data, the results to be obtained from the use thereof, or the hazards connected with the use of the product. Since the use of this product is within the exclusive control of the user, it is the user's obligation to determine the conditions for safe use of the product. Such conditions should comply with all regulations concerning the product. Quaker Chemical Corporation ("Quaker") assumes no liability for any injury or damage, direct or consequential, resulting from the use of this product unless such injury or damage is attributable to the gross negligence of Quaker.

**End of Safety Data Sheet**



## Material Safety Data Sheet

Print date: 07/13/2004

Version: 1

Revision date: 07/13/2004

### 1. COMPANY AND PRODUCT IDENTIFICATION

Product code: 011930-09  
Product name: **FORMULA 618 DE**

Supplier:  
Quaker Chemical Corporation  
Quaker Park One  
901 Hector Street  
Conshohocken, PA 19428  
610-832-4000  
E-mail: she@quakerchem.com

Emergency telephone number:  
\* 24 HOUR TRANSPORTATION:  
\*\*CHEMTREC: 1-800-424-9300  
703-527-3887 (Call collect outside of US)  
\* 24 HOUR EMERGENCY HEALTH & SAFETY:  
\*\*QUAKER CHEMICAL CORPORATION: (800) 523-7010(  
Within US only)  
Outside of US call (703) 527-3887

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

#### HAZARDOUS COMPONENTS

Components	Weight %	CAS No.	OSHA TWA (final):	ACGIH Exposure Limits:
Sodium metaphosphate	1 - 5%	10361-03-2	None	None
Sodium hydroxide	40 - 50%	1310-73-2	2mg/m <sup>3</sup>	None

### 3. HAZARDS IDENTIFICATION

#### Emergency Overview

The product causes burns of eyes, skin and mucous membranes.  
Irritating to respiratory system.  
Harmful by inhalation, in contact with skin and if swallowed.

Principle routes of exposure: Eyes, skin and inhalation.

Signal word: DANGER

Eye contact: Causes eye burns. Risk of serious damage to eyes.

Skin contact: Causes skin burns.

Inhalation: Avoid breathing vapors or mists. Irritating to respiratory system. Can cause breathing difficulties and coughing. Inhalation of high vapor concentrations may cause burns to the respiratory tract which can result in shortness of breath, wheezing, choking, chest pain, and impairment of lung function.

Ingestion: Harmful if swallowed. Can burn mouth, throat, and stomach. Ingestion may cause nausea, vomiting, sore throat, stomach-ache and eventually lead to a perforation of the intestine.

**Physico-chemical properties:** No hazards resulting from material as supplied.

#### 4. FIRST AID MEASURES

**General advice:** Take off all contaminated clothing immediately. Rinse immediately with plenty of water and seek medical advice.

**Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician

**Skin contact:** Rinse immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use.. Consult a physician if necessary.

**Ingestion:** If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting. Never give anything by mouth to an unconscious person.

**Inhalation:** Move to fresh air in case of accidental inhalation of vapors. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician.

**Notes to physician:** This product contains sodium hydroxide

**Medical condition aggravated by exposure:** None known.

#### 5. FIRE-FIGHTING MEASURES

**Flash point (°C):** NA                      **Flash point (°F):** NA                      **Flash Point Method:** Not applicable

**Flammable limits in air - lower (%):** Not determined                      **Flammable limits in air - upper (%):** Not determined

**Suitable extinguishing media:** Use dry chemical, CO2, water spray or 'alcohol' foam.

**Unusual hazards:** None known

**Special protective equipment for fire-fighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**Specific methods:** Water mist may be used to cool closed containers.

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Ensure adequate ventilation. Use personal protective equipment.

**Environmental precautions:** Do not flush into surface water or sanitary sewer system.

**Methods for cleaning up:** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

#### 7. HANDLING AND STORAGE

##### Handling

**Technical measures/precautions:** Provide sufficient air exchange and/or exhaust in work rooms.

**Safe handling advice:** Avoid contact with skin and eyes. Do not breathe vapors or spray mist. In case of insufficient ventilation, wear suitable respiratory equipment. Wear personal protective equipment. Keep container tightly closed. Wash thoroughly after handling.

### Storage

**Technical measures/storage conditions:** Store at room temperature in the original container

**Incompatible products:** Do not store near acids.

**Safe storage temperature:** 80-100 F

**Shelf life:** 6 months

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components	ACGIH Exposure Limits:	OSHA TWA (final):	NIOSH - Pocket Guide - TWAs:	Vendor Exposure Limits:
Sodium metaphosphate	None	None	None	None
Sodium hydroxide	None	2mg/m <sup>3</sup>	2mg/m <sup>3</sup> Ceiling	None

**Engineering measures:** Ensure adequate ventilation.

### **Personal Protective Equipment**

**General:** Eye Wash and Safety Shower

**Respiratory protection:** In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

**Hand protection:** Neoprene gloves

**Skin and body protection:** Chemical resistant apron. Long sleeved clothing.

**Eye protection:** Goggles.

**Hygiene measures:** Avoid contact with skin, eyes and clothing.



## 9. PHYSICAL AND CHEMICAL PROPERTIES:

**Physical state:** Liquid.  
**Color:** opaque, off-white  
**Odour:** Soapy  
**Boiling point/boiling range (°C):** >100  
**Boiling point/range (°F):** >212  
**Vapour pressure:** Not determined  
**Vapour density:** Not determined  
**Solubility:** Completely soluble  
**Evaporation rate:** Not determined  
**VOC Content Product (g/L):** Not determined  
**pH:** 9.0-9.8 @ 100%  
**Flash point (°C):** NA  
**Flash point (°F):** NA  
**Decomposition temperature:** Not determined



Auto-ignition temperature: Not determined  
 Density @ 15.5 ° C (g/cc) : 1.49  
 Bulk density @ 60 ° F (lb/gal): 12.43  
 Partition coefficient (n-octanol/water, log Pow): Not determined  
**Explosive properties:**  
   - upper limit: No data available  
   - lower limit: No data available

## 10. STABILITY AND REACTIVITY

### Conditions to avoid:

None known

### Materials to avoid:

Strong acids and oxidising agents

### Hazardous decomposition products:

None under normal use

### Stability:

Stable under recommended storage conditions.

### Polymerization:

Not applicable

## 11. TOXICOLOGICAL INFORMATION

No toxicological information is available on the product. Data obtained on components are summarized below.

Components	NTP:	IARC:	OSHA - Select Carcinogens	NIOSH - Selected LD50s and LC50s
Sodium metaphosphate	This product does not contain any material shown to be a carcinogen by the National Toxicology Program (NTP).	This product does not contain any material shown to be a carcinogen by the International Agency for Research on Cancer (IARC).	This product does not contain any material shown to be a carcinogen by OSHA.	
Sodium hydroxide	This product does not contain any material shown to be a carcinogen by the National Toxicology Program (NTP).	This product does not contain any material shown to be a carcinogen by the International Agency for Research on Cancer (IARC).	This product does not contain any material shown to be a carcinogen by OSHA.	

## 12. ECOLOGICAL INFORMATION

Persistence and degradability: No information available  
Mobility: No data available  
Bioaccumulation: No data available  
Ecotoxicity effects: No data available  
Aquatic toxicity: Not Determined

### 13. DISPOSAL CONSIDERATIONS

Waste from residues/unused products: Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

Contaminated packaging: Do not re-use empty containers

Methods for cleaning up: Take up mechanically and collect in suitable container for disposal.

### 14. TRANSPORT INFORMATION

#### U. S. DEPARTMENT OF TRANSPORTATION:

Proper shipping name:	Sodium hydroxide solution
D.O.T. Hazard Class(es)	8
UN/NA ID Number:	1824
Packing group:	II
RQ:	Sodium hydroxide, RQ kg= 1067.29
Emergency Response Guide Number:	154
DOT Label(s):	

#### TDG (CANADA):

Proper shipping name:	Sodium hydroxide solution
TDG Hazard Classification:	8
UN number:	1824
Packing group:	II

#### IMDG/IMO:

Proper shipping name:	Sodium hydroxide solution
Class:	8
UN number:	1824
Packing group:	II
EMS:	

#### IATA/ICAO:

Proper shipping name:	Sodium hydroxide solution
UN number:	1824
Packing group:	II

### 15. REGULATORY INFORMATION

#### CLASSIFICATION AND LABELING

OSHA Hazard Communication Standard: This product is considered to be hazardous.

Canada - WHMIS Classification Information: This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

Product Classification: Class E - Corrosive Material  
Product Classification  
Graphic(s):



Component Classification Data:

*Sodium hydroxide - 1310-73-2*

WHMIS hazard class: 1 % (English Item 1442, French Item 998)  
E

**U.S. REGULATIONS:**

SARA (311, 312) hazard class: This product possesses the following SARA Hazard Categories:

Immediate Health (Acute): Yes  
Delayed Health (Chronic): No  
Flammability: No  
Pressure: No  
Reactivity: No

RCRA Status: To be disposed of as hazardous waste  
characteristic:  
corrosive D002

**STATE REGULATIONS (RTK):**

California Proposition 65 Status: A component of this product contains trace amounts of listed compound(s). May contain trace amounts of listed chemicals: Formaldehyde

*Sodium hydroxide - 1310-73-2*

MARTK: Present  
NJRTK: sn 1706  
PARTK: Environmental hazard

**INVENTORY STATUS:**

United States TSCA - Sect. 8(b) Inventory: This product complies with TSCA

Canada DSL Inventory List -

DSL Compliance has not been determined

EC EINECS/ELINCS/NLP list:

Compliance has not been determined

## 16. OTHER INFORMATION

Sources of key data used to compile the data sheet:

Material safety data sheets of the ingredients.

Reason for revision:

This data sheet contains changes from the previous version in section(s) 2, 8, 15.

Prepared by:

Quaker Chemical Corporation -Safety, Health and Environmental Affairs Group - US

HMIS classification:

NFPA rating:

Health:

3

Health:

3

Flammability:

0

Flammability:

0

Reactivity:

1

Reactivity:

1

Personal Protection:

H

Special:

NA

\* Indicates possible chronic health effect

Personal protection recommendations should be reviewed by purchasers. Workplace conditions are important factors in specifying adequate protection.

### Disclaimer:

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End of Safety Data Sheet

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 W. JACKSON BOULEVARD  
CHICAGO, IL 60604

COMPLIANCE EVALUATION INSPECTION REPORT

INSTALLATION NAME: Double Eagle Steel Coating Company

EPA ID No.: MID 981 092 190

LOCATION ADDRESS: 3000 Miller Road  
Dearborn, Michigan 48120

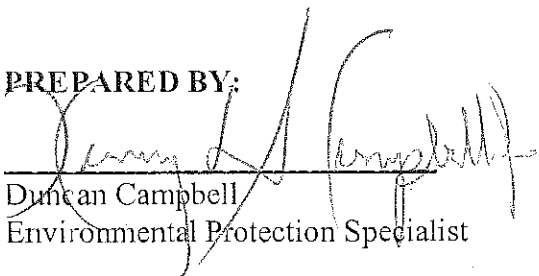
NAICS CODE: 332812 – Metal Coating

DATE OF INSPECTION: February 27, 2005

U.S. EPA INSPECTOR: Duncan Campbell


MDEQ INSPECTOR: James Day

PREPARED BY:

  
Duncan Campbell  
Environmental Protection Specialist

06/26/2006  
Date

REVIEWED BY:

  
Paul Little, Chief  
Compliance Section 2

6-26-06  
Date

### **PURPOSE OF INSPECTION:**

On February 27, 2006, U.S. EPA led a Compliance Evaluation Inspection (CEI) at the Double Eagle Steel Coating Company (DESCC) located at 3000 Miller Road, Dearborn, Michigan. The purpose of the inspection was to determine the DESSC's compliance with the Resource, Conservation and Recovery Act (RCRA) and Michigan Administrative Code Part 111 Rule 299.9301 et seq. The Michigan Department of Environmental Quality (MDEQ) accompanied U.S. EPA and made determinations regarding DESSC's compliance with the Michigan Liquid Industrial Wastes requirements of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

### **INTRODUCTION:**

U.S. EPA representative Duncan Campbell and MDEQ representative Jim Day arrived at the installation at approximately 9:30am. Inspectors Campbell and Day introduced themselves to Mr. Chris McBee, who represented DESSC during the inspection. The inspectors presented their enforcement credentials to Mr. McBee. Inspector Campbell informed Mr. McBee as to the nature and scope of U.S. EPA's RCRA inspection. Prior to leaving the facility Inspector Campbell briefed Mr. Thomas Kevin, DESSC's plant manager, regarding U.S. EPA's observations and the procedures and likely follow-up to this EPA led inspection.

### **INSTALLATION DESCRIPTION:**

Mr. McBee provided Inspectors Campbell and Day with an overview of DESSC's operations. DESSC, which was started as a joint venture between U.S. Steel and Rouge Steel, is located immediately across Miller Road from the former Rouge Steel plant. The Rouge Steel plant has been acquired by Severstal North America. Ford Motor's Dearborn Assembly is also across Miller Road from DESSC.

DESCC is advertised as the world's largest electro-galvanizer of carbon steel. DESSC sells zinc-alloy (typically 13-15% iron) coated roll coil to DaimlerChrysler, Ford and GM. The "big three" use the zinc-alloy coated steel because of its smooth, matte finish which provides exceptional surface quality to make exposed panels for autos - fenders, hoods, deck lids and doors - requiring a high finish after painting. Zinc-alloy coatings inhibit corrosion by creating a continuous, impervious metallic barrier that does not allow moisture to contact the steel surface. A galvanic condition is created during the electrolytic process when a thin coating of positively charged alloy - forming a cathode - is plated over the negatively charged carbon steel. In this way the zinc-alloy becomes sacrificial being the first to corrode and preserving the carbon steel. The zinc-alloy surface is also more resistant to manufacturing damage during stamping and handling of the panels.

Mr. McBee explained that there are two primary functions at DESSC: cleaning/prep and zinc/alloy plating. Mr. McBee escorted the two inspectors to the north end of the Terminal Building. DESSC performs cleaning and preparation of the rolled carbon steel coils within the



Terminal Building. Rolled carbon steel coils enter the Terminal Building from the north end and are placed on a "pay-off reel." Coils must be cleaned prior to being coated with zinc-alloy coating. DESCC uses a mixture of sodium hydroxide [NaOH] (15% concentration) and a surfactant as a cleaner. This caustic mixture is applied to the steel coil in a High Current Density [HCD] Electrolytic Cleaning Line. The HCD line re-circulates the mixture into a 10,000 gallon "solution sump." Oil removed from the coil steel surface flows to the "solution sump." Over time, the oil rises to the top of the "solution sump" where it can be removed from the mixture.

On March 7, 2006, Mr. Swientoniowski, Site Manager, Houghton International, provided James Day, MDEQ, with a sketch of how the caustic cleaners are re-circulated within the process. (See Swientoniowski Sketch.) DESCC uses two different cleaners Q613 and Q618. The nomenclatures refer to the primary component in each of these cleaner. These two caustic cleaners are both directed to a centrifuge and then to an oil/water separator. The oil is removed and conveyed to Tanks 43 and 44 and managed as "Used Oil." (Photos DESCC 004 and 005).

DESCC hires Vac-All Services [MID 985 633 015] to remove oil from the "solution sump." (See DESCC Exhibit B). DESCC terms this waste stream "skimmed oil." DESCC personnel told the inspectors that this wastestream is managed as a hazardous waste once it has been removed from the "solution sump." (See DESCC Exhibit M - Dynecol Waste Approval Number 4242). The "skimmed oil" is vacuumed directly into a Vac-All tanker trailer which immediately transports it to EQ Detroit [MID 980 001-566], therefore, avoiding any form of hazardous waste storage [or 90 day accumulation] on-site. DESCC provided the inspectors with a copy of the hazardous waste characterization for the "skimmed oil."

DESCC personnel also told the inspectors that the caustic cleaner in the HCD is completely emptied once every three months. This spent caustic cleaner is also managed as a hazardous waste and is currently being sent off-site to EQ Detroit.

DESCC also has a 20,000 gallon tank [Tank 12] located outside and to the north of the Terminal Building. (See DESCC Exhibits A and E). (Photos DESCC 001, 002, and 003) Tank 12 is positioned within a secondary containment structure made of concrete. (Photos DESCC 007, 008 and 009). Tank 12 is used to store material surplus materials which have been removed from the HCD line. Mr. McBee informed the inspectors that the contents of Tank 12 are being sent off-site to Dynecol [MID 074 259 565.] (See DESCC Exhibit G). Mr. McBee stated that Dynecol uses these contents to adjust pH and therefore the material is exempt from RCRA for its beneficial "reuse." Later during the inspection, and subsequent to the inspection, the inspectors learned that this same material is also sent off-site as hazardous waste and Liquid Industrial Waste. (See DESCC Exhibits B and C). (See DESCC Operating Practice S-01-59-10.) DESCC stated on Page 4, second paragraph from the bottom of its April 28, 2006, response to MDEQ's March 29, 2006, Letter of Warning, that the decision to ship material stored within Tank #12 is made when the transporter arrives on-site and hooks up its hose to the Tank #12 ancillary equipment, explained as "Caustic Downturn." (See DESCC Exhibits G and H). The term "caustic downturn" apparently relates to both the location of the valve that the material flows through and the material itself. (Photos DESCC 001, 002 and 003.)

Mr. Bob Zarb, of DESCC, explained the sequence to the zinc-alloy electro galvanizing that occurs in the Chemical Building. DESCC has one set of plating baths to apply the zinc and the alloy coatings. These baths alternately hold zinc and alloy plating solutions. Both solutions are free of cyanide. First, rolled coil carbon steel is introduced to the zinc plating and then later to alloy plating solution. The application is performed in a cold, electrolytic bath, as opposed to a molten bath. Alloy is applied to improve the corrosion protection which extends the life of service and enhances the esthetic properties. Zinc alloy electro-galvanizing also improves the formability of the substrate. Mr. Zarb explained that typically, the process requires periodic washing of the individual plating cells following the application of the alloy coating. He also explained that sometimes waste is generated as a result of a leaking or ruptured boot or from an overflowing cell.

Mr. Zarb explained that there are two sumps located in the basement or substructure of the Chemical Building in what DESCC terms the "Snake Pit." These two sumps re-circulate back into the plating process.

As a result of washing the cells the added water dilutes the pH of the acid. The change in the solubility of the plating bath results in the formation of a precipitate. This precipitate is washed out of the cell and ends up being flushed down to four waste acid sumps. (Photos DESCC 010-015.) The four sumps cascade into each other. Effluent from the fourth acid sump is conveyed to the on-site wastewater treatment facility. The solids [precipitate] that collect in these sumps have to be periodically removed. Historically, DESCC has managed these solids as hazardous waste. (See Manifests MI9509106, MI9509170, MI9931008 and MI9509267.) On March 12, 2006, DESCC explained to EPA that solids are hazardous as a result of the concentration of chromium. The source of the chromium is from a Hastelloy Band and not from the plating solution. It was explained that electrical current passing through metallic strips degrades the stainless steel over time. As a result of this degradation in the stainless steel, chromium is released. As explained above, initially the chromium is in solution and commingles with waste acid which is continually bled off the plating tanks. As a result of washing the cell [dilution], the pH of the waste acid rises. The change in the pH changes the chromium to an oxide which precipitates out of solution. The precipitate is manually washed toward the four acid sumps. (See DESCC Exhibit M - Dynecol Waste Approval Number 5057). (Photos DESCC 010-015).

A side-stream is diverted from the plating process. This side-stream results in a solid material that is directed through a filter press. The filter press is located near Overhead Door #10. DESCC manages these solids as a Liquid Industrial Waste and at the time of the inspection was sending them off-site for stabilization to EQ Detroit [MID 980 001 566]. (See DESCC Exhibit L). DESCC has provided the inspectors with analytical test results supporting its determination that this material is not hazardous waste.

#### VISUAL SITE INSPECTION:

The visual site inspection of the Double Eagle began at approximately 11:00am. The inspectors were escorted to two production departments: cleaning/stripping and plating.

- 1) The inspectors observed liquid substance within the secondary containment of Tank 12.
- 2) The inspectors were told that Tank 12 has overflowed into the secondary containment on several occasions
- 3) The inspectors observed a red tinted solid substance in the "Snake Pit"

#### **RECORDS REVIEW:**

The inspectors requested Double Eagle provide the agencies with training records, contingency plan, manifests and waste characterization reports for all hazardous waste and liquid industrial waste generated at the facility. Subsequent February 27, 2006, MDEQ has issued Double Eagle two Letters of Warning [March 29, 2006, and May 31, 2006] requesting it provide the agencies with additional information. On April 28, 2006, Double Eagle responded to MDEQ's first Letter of Warning, providing amongst other things, EPA with a copy of its 2005 Biennial Report and an integrity assessment for Tank #12 and the secondary containment immediately surrounding the tank. The tank integrity assessment was certified by an independent professional engineer. The integrity assessment's scope was narrowly limited to the tank, its immediate secondary containment and the ancillary equipment confined within that secondary containment.

#### **CLOSING CONFERENCE:**

Inspector Campbell conducted a closing conference with Mr. Thomas Kevin, Plant Manager, and his staff. Inspector Campbell stated his observation of liquid substance within the secondary containment surrounding Tank 12 and his concern that hazardous waste may be stored in this tank from time to time. Tank 12 was not labeled or marked as a hazardous waste tank and Inspector Campbell was unable to obtain an integrity assessment for Tank 12. Inspector Campbell also requested a certification signed by an independent, qualified, registered professional engineer certifying that Tank 12 meets the standards established in either 40 C.F.R §§ 265.191 or 265.192, depending on the age the tank was put into service.

Inspector Day of MDEQ also expressed concerns, to Mr. Kevin, regarding the materials observed within Tank 12's secondary containment if these materials were to ultimately be shipped off-site as Michigan Liquid Industrial Waste and subject to the Part 121 regulations found in Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

#### **ATTACHMENT:**

MDEQ Large Quantity Generator Inspection Form  
MDEQ Generator Tank System Inspection Form  
Photographs  
Exhibits provided by DESCC



# MICHIGAN GENERATOR INSPECTION FORM

Double Eagle Steel Coating Company

MD 981 092 190

Inspection date 02/27/2006

HAZARDOUS AND LIQUID INDUSTRIAL WASTE #	SOURCE
Downturn Causric	High Current Density Electrolytic Cleaning Line (HCD) - spent caustic, surfactant and oil
Alloy Chrome sludge	Precipitate from Hastelloy Bands. This mixes with the waste acid that is washed out of the alloy plating baths into the "snake pit"
Waste caustic	Overflow from Tank #12

## WASTE DETERMINATION (Rule 302: 40 CFR 262.11)

		YES	NO	NI	N/A
1. Determined if waste streams are hazardous waste? (Rule 302: 40 CFR 262.11)	QGR	<input type="checkbox"/>	<input checked="" type="checkbox"/> <sup>1</sup>	NI	N/A
a) Copy of waste evaluation on-site 3 years? (Rule 307(1): 40 CFR 262.40(c))	QBR	<input type="checkbox"/>	<input checked="" type="checkbox"/> <sup>2</sup>	NI	N/A
b) Re-evaluated waste when changes in materials or process? (Rule 302(3))	QGR	<input type="checkbox"/>	<input checked="" type="checkbox"/> <sup>3</sup>	NI	N/A

## IDENTIFICATION NUMBER (Rule 303: 40 CFR 262.12)

2. Has the generator obtained an identification number? (Rule 303: 40 CFR 262.12)	QGR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
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## MANIFEST REQUIREMENTS (Rule 304: 40 CFR 262.20)

3. Copies of the manifest readily available for review & inspection (matched)? (Section 11138(1)(f)) CMI		<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
4. Manifests kept for the past 3 years? (Rule 307(3): 40 CFR 262.40(a))	QMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
5. Manifests, contain the following? (Rule 304(1)(a): 40 CFR 262.20(a))					
a) Manifest document number. (Rule 304(2)(a): 40 CFR 262.20(a))	QMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
b) Generator's name, address, phone & ID # (Rule 304(2)(b): 40 CFR 262.20(a))	QMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
c) Name & ID # of the transporter. (Rule 304(2)(c): 40 CFR 262.20(a))	QMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
d) Name, address & ID # of TSDF. (Rule 304(2)(d): 40 CFR 262.20(b)&(c))	QMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
e) DOT description of waste(s). (Rule 304(2)(e): 40 CFR 262.20(a))	QMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
f) Quantity of waste, & type. (Rule 304(2)(f): 40 CFR 262.20(a))	QMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
g) Hazardous waste number of the wastes. (Rule 304(2)(g): 40 CFR 262.20(a))	QMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
h) Generator signature, initial transporter & date of acceptance? (Rule 304(4)(a)&(b): 40 CFR 262.23(a)(1)&(2))	QMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
6. Submitted copy of manifests to director no later than 10 days after month shipment was made? (Rule 304(4)(d))	QMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
7. Is the transporter used properly licensed under Act 451, Part 111? (Rule 304(1)(c))	QMR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A

	YES	NO	NI	N/A
8. Using manifest that has expired? (Rule 304(2): 40 CFR 262.20(a))		<b>NO</b>		
9. Reportable exceptions. (Rule 308(3): 40 CFR 262.42)				
a) Number of manifests generator <u>HASN'T</u> receive signed copy from TSD w/in 35 days.		<b>None</b>		
b) Manifests generator <u>HASN'T</u> submitted exception reports to RA & DEQ after 45 days.		<b>Not Applicable</b>		
10. Facility have written program to reduce volume/toxicity/recycle wastes? (Rule 304(2)(i):40 CFR 262.20(a))		<b>Not inspected</b>		

OR

11. Facility discuss program in place to reduce volume/toxicity/recycle of wastes? (Rule 304(2)(i): 40 CFR 262.20(a))	<b>Not inspected</b>
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**WASTE ANALYSIS AND RECORDKEEPING (40 CFR 268.7)**

12. Did the generator determine if the waste is restricted from land disposal? (40 CFR 268.7(a))	
a) All listed wastes?	<b>Not Applicable</b>
b) All characteristic wastes?	<b>[X]</b> <input type="checkbox"/> NI N/A
13. If restricted waste exceeds treatment standards or prohibitions did notice go with first shipment? (40 CFR 268.7(a)(1))	<b>[X]</b> <input type="checkbox"/> NI N/A

OR

14. If restricted waste does not exceed treatment standards or prohibitions did a notice and certification statement go with each shipment? (40 CFR 268.7(a)(2))	<b>Not Applicable</b>
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OR

15. If waste has exemption from prohibition on the type of land disposal method utilized for the waste, did a notice go with each shipment? (40 CFR 268.7(a)(3))	<b>Not Applicable</b>
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OR

16. If facility choose alternative treatment standard for lab pack that contains none of the waste in appendix IV, did a notice & certification go w/ each shipment? (40 CFR 268.7(a)(8))	<b>Not Applicable</b>
17. Did the notice include: (40 CFR 268.7(a)(1)(I-v) or 268.7(a)(2)(I-A-D) or 268.7(a)(3)(I-iv)	
a) EPA hazardous waste #?	<b>[X]</b> <input type="checkbox"/> NI N/A
b) If wastewater or non-wastewater as defined in 268.2(d & f)?	<b>[X]</b> <input type="checkbox"/> NI N/A
c) Subcategory of the waste (such as D003 reactive cyanide) if applicable?	<b>Not Applicable</b>
d) Manifest number associated with the shipment?	<b>[X]</b> <input type="checkbox"/> NI N/A
e) Waste analysis data, where available?	<b>[X]</b> <input type="checkbox"/> NI N/A
f) Waste constituents that the treater will monitor, if monitoring will not include all regulated constituents, for F001 - F005, F039, D001, D002, D012-D043? (treatment standards for hazardous waste in table in 268.40 for the waste code under regulated constituents)	<b>Not Applicable</b>

UNLESS

g) Did TSD claim: they are going to monitor for ALL regulated constituents in the waste <u>in lieu of</u> the generator indicating same in the notice? (40 CFR 268.7(a)(1)(ii))	<input type="checkbox"/> <b>X</b> <input type="checkbox"/> NI N/A
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	YES	NO	NI	N/A
h) Will the TSD treat for underlying hazardous waste constituents that are reasonably expected to be present at the generation point above UTS standards for D001 & D002? (40 CFR 268 Subpart D & 268.48)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
18. Other than notices for waste exceeding treatment standards, did notices include:				
a) If the notice is for shipments that meet the standards do the notice include the certification?	Not Applicable			
b) If the notice is for shipments under prohibitions - does the notice include a statement that the waste isn't prohibited from land disposal & date the waste is subject to prohibition?	Not Applicable			
19. Generator retains on-site records to support determination from knowledge or results from tests? (40 CFR 268.7(a)(5))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
20. If the restricted waste is excluded from being a hazardous waste or solid waste did the generator place an on-time notice stating same in the facility file? (40 CFR 268.7(a)(6))	Not Inspected			
21. All notices/certifications/demonstrations/other documents retained for 3 years on-site? (40 CFR 268.7(a)(7))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A

NOTE: This requirement (268.7(a)(7)) applies to solid waste even when the hazardous waste characteristic is removed prior to disposal or when the waste is excluded from the definition of hazardous waste or solid waste.

### DILUTION PROHIBITED AS SUBSTITUTE FOR TREATMENT (40 CFR 268.3)

22. Generator dilute hazardous waste or treatment residue of a hazardous waste to avoid prohibition? (40 CFR 268.3(a))	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NI	N/A
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### TREATMENT STANDARDS (40 CFR 268.40)

23. If wastes exceeding treatment standards are mixed, was the most stringent standards selected? (40 CFR 268.40(c))	Not Applicable			
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### BIENNIAL REPORT (Rule 308; 40 CFR 262.41)

24. Generator submitted its 2005 biennial report? (Rule 308(1); 40 CFR 262.41)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
25. Were copies of the report retained at least 3 years? (Rule 307(4); 40 CFR 262.40(b))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A

### PRE-TRANSPORTER REQUIREMENTS (Rule 305; 40 CFR 262.30)

26. Waste packaged according to DOT regulations (required before shipping waste off-site)? (Rule 305(1)(a); 40 CFR 262.30)	Not Applicable			
27. Are waste packages marked & labeled according to DOT concerning hazardous materials (required before shipping waste off-site)? (Rule 305(1)(b)(c); 40 CFR 262.32(a))	Not Applicable			
28. On containers 110 gallons or less, is there a warning, generator's name, address, manifest document # & waste code; 49 CFR 172.304? (Rule 305(1)(d); 40 CFR 262.32(b))	Not Applicable			
29. If required, are placards available to the transporter? (Rule 305(1)(e); 40 CFR 262.33)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A

### ACCUMULATION TIME (Rule 306; 40 CFR 262.34)

30. If hazardous waste accumulated in containers: (If no, skip to #35)				
a) Containers have accumulation date & visible? (Rule 306(1)(b); 40 CFR 262.34(a)(2))	Not Applicable			
b) Container has words "Hazardous Waste"? (Rule 306(1)(c); 40 CFR 262.34(a)(3))	Not Applicable			
c) Is each container clearly marked with the hazardous waste number? (Rule 306(1)(b))	Not Applicable			
d) Has more than 90 days elapsed since date marked? (Rule 306(1))	Not Applicable			

UNLESS

		YES	NO	NI	N/A
e) The generator applied for & received an extension to accumulate longer? (Rule 306(3): 40 CFR 262.34(b))	QEL				Not Applicable
f) Are containers in good condition? (265.171)	QEL				Not Applicable
g) Are containers compatible with waste in them (265.172)	QEL				Not Applicable
h) Are containers stored closed? (265.173(a))	QEL				Not Applicable
i) Containers handled or stored in a way which may rupture it or cause leaks? (265.173(b))	QML				Not Applicable
j) Ignitable & reactive wastes stored 15 meters (50 feet) from property line? (265.176)	QML				Not Applicable
k) Are containers inspected weekly for leaks and defects? (265.174)	QML				Not Applicable
l) Did the generator document the inspections in 30(k)? (Rule 306(1)(a)(I))	QML				Not Applicable
m) Inspection documents maintained on-site 3 years? (Rule 306(1)(a)(I))	QML				Not Applicable
n) Are incompatible wastes stored in separate containers? (265.177(a))	QML				Not Applicable
o) Hazardous wastes put in unwashed containers that previously held incompatible waste. (265.177(b))	QML				Not Applicable
p) Incompatible waste separated/protected from each other by physical barriers or sufficient distance? (265.177(c))1	QML				Not Applicable
31. If hazardous waste is being accumulated at the point of generation:					
a) Container(s) < 55 gal or 1 qt acutely/severely toxic? (Rule 306(2): 40 CFR 262.34(c)(1))	QEL				Not Applicable
b) Container(s) under operator control & near the point of generation? (Rule 306(2): 40 CFR 262.34(c)(1))	QML				Not Applicable
c) Container(s) have words "Hazardous Waste"? (Rule 306(2): 40 CFR 262.34(c)(1)(ii))	QML				Not Applicable
d) Are the container(s) marked with the hazardous waste number? (Rule 306(2))	QML				Not Applicable
e) Are container(s) in good condition? (265.171)	QML				Not Applicable
f) Are container(s) compatible with waste in them? (265.172)	QML				Not Applicable
g) Container(s) closed when not in use & managed to prevent leaks? (265.173(a))	QML				Not Applicable
32. If generator exceeded 55 gallons, w/in 3 days did generator, w/respect to that amount of excess waste: (Rule 306(2): 40 CFR 262.34(c)(2))					
a) Mark the container with the date the excess amount began accumulating?	QML				Not Applicable
b) Move to an area with secondary containment?	QML				Not Applicable
33. If accumulating free liquids does the hazardous waste container storage area include:					
a) Impervious base free of cracks? (264.175(b)(1))	QML				Not Applicable
b) Sloped or otherwise designed to elevate/protect containers from contact with liquids? (264.175(b)(2))	QML				Not Applicable
c) Hold 10% of volume of containers or volume of the largest container, whichever is greater? (264.175(b)(3))	QML				Not Applicable
d) Run-on prevented unless sufficient capacity? (264.175(b)(4))	QML				Not Applicable
e) Accumulated liquids removed in a timely manner to prevent overflow? (264.175(b)(5))	QML				Not Applicable

34. If accumulating solids of hazardous waste in containers: is accumulation area sloped or otherwise designed? Or, are containers elevated or otherwise protected from contact with liquids? (264.175(c))	Not Applicable
35. Is hazardous waste accumulated in other than tanks or containers? Or, is hazardous waste generated but not accumulated, i.e.: process tank? Explain any yes answer.	<input checked="" type="checkbox"/> [ ] NI N/A
36. Containerized waste area protected from weather, fire, physical damage & vandals? (Rule 306(1)(e))	Not Applicable
37. Are Containers of hazardous waste accumulated in such a way so that no hazardous waste or hazardous waste constituent can escape by gravity into soil, directly or indirectly, into surface, groundwaters, drains or sewers? (Rule 306(1)(f))	Not Applicable
38. Is hazardous waste accumulated in tanks? If so, complete Tank System inspection form.	<input checked="" type="checkbox"/> [ ] NI N/A
39. Is hazardous waste placed on drip pads? If so, complete Wood Preserving inspection form.	[ ] <input checked="" type="checkbox"/> NI N/A

### PERSONNEL TRAINING (265.16)

40. Do personnel training records contain the following:	
a) Job title? (265.16(d)(1))	<input checked="" type="checkbox"/> [ ] NI N/A
b) Job descriptions? (265.16(d)(2))	<input checked="" type="checkbox"/> [ ] NI N/A
c) Name of employee filling each job? (265.16(d)(1))	<input checked="" type="checkbox"/> [ ] NI N/A
d) Description of type & amount of both introductory & continued training? 265.16(d)(3))	<input checked="" type="checkbox"/> [ ] NI N/A
e) Training designed so facility personnel can respond to emergencies? (265.16(a)(3))	[...] <input checked="" type="checkbox"/> <sup>5</sup> NI N/A
f) Records of training? (265.16(d)(4))	<input checked="" type="checkbox"/> [ ] NI N/A
g) Do new personnel receive required training within 6 months? (265.16(b))	<input checked="" type="checkbox"/> [ ] NI N/A
h) Do training records show personnel have taken part in annual training? (265.16(c))	<input checked="" type="checkbox"/> [ ] NI N/A
i) Training by person trained in haz. waste management procedures? (265.16(a)(2))	<input checked="" type="checkbox"/> [ ] NI N/A

### PREPAREDNESS AND PREVENTION (265.30-265.37)

41. Facility maintained or operated to minimize the possibility of a release of hazardous waste or hazardous waste constituent which could threaten human health/environment? (265.31)	co. said [ ] observed <input checked="" type="checkbox"/> <sup>6</sup> NI N/A
42. If required, does this facility have the following equipment:	
a) Internal communications or alarm systems? (265.32(a))	<input checked="" type="checkbox"/> [ ] NI N/A
b) Telephone or 2-way radios at the scene of operations? (265.32(b))	<input checked="" type="checkbox"/> [ ] NI N/A
c) Portable fire extinguishers, fire control, spill control equipment and decontamination equipment? (265.32(c))	<input checked="" type="checkbox"/> [ ] NI N/A
d) Adequate volume of water and/or foam available for fire control? (265.32(d))	<input checked="" type="checkbox"/> [ ] NI N/A
43. Testing and Maintenance of Emergency Equipment:	
a) Owner/operator test & maintain emergency equipment to assure operation? (265.33)	<input checked="" type="checkbox"/> [ ] NI N/A
b) Has owner/operator provided immediate access to internal alarms? (265.34(a&b))	
i) When hazardous waste is being poured, mixed, etc.	<input checked="" type="checkbox"/> [ ] NI N/A
ii) One employee on the premises while facility is operating.	<input checked="" type="checkbox"/> [ ] NI N/A

c) Aisle space for unobstructed movement of personnel/emergency equipment? (265.35)	GPE	Not Applicable
44. Has the facility made arrangements with local authorities? (265.37(a)&(b))	GPE	[X] ___ NI N/A

### CONTINGENCY PLAN AND EMERGENCY PROCEDURES (265.50-265.56)

45. Plan implemented whenever release could threaten human health or the environment? (265.51(b))	GPE	[ ] X <sup>7</sup> NI N/A
46. Does the contingency plan contain the following information:		
a) Actions personnel must take responding to unplanned release of hazardous waste? (265.52(a & b))	GPE	[X] ___ NI N/A
b) Describe arrangements or attempts w/ local police, fire, hospitals, contractors, state & local emergency responders for emergency services; (265.52(c)) & (265.37(a)&(b))?	GPE	[X] ___ NI N/A
c) Name, addresses & phone (office & home) of emergency coordinator? (265.52(d))	GPE	[X] ___ NI N/A
d) List emergency equipment at the facility, including location, physical description & capabilities? (265.52(e))	GPE	[X] ___ NI N/A
e) Evacuation plan for personnel w/ signal(s), evacuation routes & alternate evacuation routes. (265.52(f))	GPE	[X] ___ NI N/A
47. Emergency Coordinator and Emergency Procedures:		
a) Coordinator familiar with site operation & emergency procedures? (265.55)	GPE	[X] ___ NI N/A
b) Emergency coordinators have authority to carry out the contingency plan? (265.55)	GPE	[X] ___ NI N/A
c) If emergency occurred, did coordinator follow emergency procedures? (265.56)	GPE	[ ] X <sup>8</sup> NI N/A
d) Other release of hazardous waste/haz. waste constituents, could threaten human health or environment or generator has knowledge spill reached surface or ground water, did generator notify MDEQ? (Rule 306(1)(d))	GPE	[ ] X <sup>9</sup> NI N/A
48. Contingency plan Amendments and Copies:		
a) Amended if changes to regulations/emergency coordinators/emergency equipment? (265.54)	GPE	[X] ___ NI N/A
b) Copies of plan on site and sent to local emergency organizations? (265.53)	GPE	[X] ___ NI N/A

### INTERNATIONAL SHIPMENTS (Rule 309 & 310: 40 CFR 262.50-262.60)

49. Has the facility imported or exported hazardous waste?	GPE	Not Applicable
a) Exporting, has the generator:	GPE	Not Applicable
i) Notified the Administrator in writing? (262.52(a))	GPE	Not Applicable
ii) Receiving country consented to accept waste. (262.52(b))	GPE	Not Applicable
iii) Has copy of EPA Acknowledgment of Consent. (262.52(c))	GPE	Not Applicable
iv) Complied with manifest requirements Rule in 309(2)(a-i).	GPE	Not Applicable
v) If required, was an exception report filled. (309(3)(a-c))	GPE	Not Applicable

### ACCUMULATION AREA CLOSURE (265.111 & 265.114)

50. The accumulation area must be closed in a manner that: (265.111 & 265.114)		
a) Minimizes need for further maintenance.	GPE	Not Applicable
b) Controls/minimizes/eliminates, to protect human health & environment, the escape of haz. waste or haz. waste constituents, leachate, run-off to ground/surface waters and air.	GPE	Not Applicable

c) All contaminated equipment, structures, and soil properly disposed of.

Not Applicable

**Footnotes:**

1. The inspectors observed two potential releases. First, the inspectors observed and took pictures of a liquid substance within the secondary containment surround Tank #12. Second, the inspectors observed a (red/orange) precipitate within the "snake pit." The "snake pit" is located in the basement of the Chemical Building. Double Eagle had not characterized either of these releases. Double Eagle has managed both materials as hazardous waste in the past. If Double Eagle, had determined that either [or both] of these releases was hazardous waste, it had made no effort to either manage either in containers or tanks.
2. As stated above in footnote #1 – Double Eagle had not made a hazardous waste determination – based upon analytical – for either release.
3. With respect to the substance the inspectors observed in the secondary containment around Tank #12, Double Eagle was not making a waste determination – supported by analytical results- each time Tank #12 overflowed.
4. Linked to the inspectors' observations recorded in footnote #1 – Double Eagle may have been accumulating hazardous waste in structures that do not meet the definition of either a tank or a container. Because Double Eagle had not made a hazardous waste determination that was supportable by analytical results, additional information is required.
5. The annual training was deficient in fully describing to personnel how they should respond to repeated overfillings of Tank #12. Also, there was no apparent effort to manage the precipitate from the waste acid tanks when cleaning out the alloy plating. This resulted in the co-mingling of chromium bearing waste generated as a result of the degradation of the Hastalloy bands.
6. There was no evidence that Double Eagle was maintaining the facility or operating it to minimize the possibility of a threat to human health or the environment from either release mentioned above.
7. There was no evidence that Double Eagle had implemented the Contingency Plan each time Tank #12 overflowed, or when the operator washed precipitate from the alloy plating cells that contained chromium from the Hastalloy bands.
8. There is no evidence that Double Eagle treated either of these re-occurring situations as an emergency because there was no record of its implementing any of the emergency procedures.
9. Double Eagle did not notify MDEQ when either of these re-occurring events took place. The operator was alloy plating cells every operating day.





## GENERATOR TANK SYSTEM CHECKLIST

Double Eagle Steel Coating Company  
3000 Miller Road  
Dearborn, MI 48120  
MID 981 092 190

Inspected on February 27, 2006

## ALL TANK SYSTEMS ACCUMULATION TIME (Rule 306: 40 CFR 262.34)

		YES	NO	NI	N/A
1. Had more than 90 days elapsed since the tank was emptied?	Q1P		<input checked="" type="checkbox"/>	NI	N/A
2. Was tank labeled or marked with the words "Hazardous Waste?" (Rule 306(1)(c): 40 CFR 262.34(a)(3))	Q1P	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NI	N/A

## GENERAL OPERATING REQUIREMENTS (265.194)

3. Could wastes placed in the tank system cause ruptures, leaks corrosion or other failure? (265.194(a))	Q1E	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NI	N/A
4. Controls and practices to prevent spills and overflows must include: (265.194(b))					
a) Spill prevention controls. (265.194(b)(1))	Q1E	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NI	N/A
b) Overfill prevention controls. (265.194(b)(2))	Q1E	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NI	N/A
c) Freeboard in uncovered tanks to stop overtopping by wave or wind action or precipitation. (265.194(b)(3))	Q1E				NOT APPLICABLE
5. A tank system or secondary containment system from which there has been a leak, spill or which is unfit for use, was it:					
a) Removed from service immediately? (265.196)	Q1E	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NI	N/A
b) Completed requirements in 265.196(a-f)	Q1E	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NI	N/A

## INSPECTIONS (265.195)

6. Where present, has the facility inspected at least once each operating day. (265.195(a))					
a) Discharge, overflow/spill control equipment (daily). (265.195(a)(1))	Q1E	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NI	N/A
b) Monitoring equipment data (daily). (265.195(a)(3))	Q1E				NOT APPLICABLE
c) Above ground portion of tank system (daily). (265.195(a)(2))	Q1E	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NI	N/A
d) Materials and area around tank (daily). (265.195(a)(4))	Q1E	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NI	N/A
e) Are the inspections documented? (265.195(c))	Q1E	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NI	N/A

YES NO NI N/A

7. Must inspect cathodic protection system, if present, for in-ground tanks:

a) Cathodic protection within six months after initial installation (annually thereafter). (265.195(b)(1))	Y	NOT APPLICABLE
b) Impressed current inspected and/or tested at least bimonthly. (265.195(b)(2))	Y	NOT APPLICABLE
c) Are the inspections documented? (265.195(c))	Y	NOT APPLICABLE

**SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE (265.198)**

8. Ignitable or reactive waste must not be placed in tanks unless:

a) Treated/mixed before or immediately after placed in the tank system, so: (265.198(a)(1))

i) Resulting mixture is no longer ignitable/reactive. (265.198(a)(1)(i))	Y	NOT APPLICABLE
--	---	----------------

AND

ii) Does not cause environmental or structural damage to tank systems. (265.198(a)(1)(ii))	Y	NOT APPLICABLE
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OR

b) Waste stored/treated so protected from igniting or reacting. (265.198(a)(2))	Y	NOT APPLICABLE
---	---	----------------

OR

c) Tank system is used solely for emergency. (265.198(a)(3))	Y	NOT APPLICABLE
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9. Observed National Fire Protection Association's buffer zone for tanks w/ ignitable or reactive wastes? (265.198(b))	Y	NOT APPLICABLE
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10. Is the tank system designed, constructed, operated and maintained in conformance with the requirements of Act 207, Michigan flammable liquid regulations. (Rule 615)(4))	Y	NOT APPLICABLE
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11. Is the tank labeled in accordance with NFPA standard no. 704? (Rule 615(5))	Y	NOT APPLICABLE
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**INCOMPATIBLE WASTE (265.199)**

12. Are incompatible wastes stored in separate tanks? (265.199(a)) (If not, the provisions of 265.17(b) apply.)	Y	NOT APPLICABLE
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13. Tank decontaminated before hazardous waste placed in it that held incompatible waste, unless 265.17(b). (265.199(b))	Y	NOT APPLICABLE
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**CLOSURE AND POST-CLOSURE (265.197)**

14. If the tank system is closed, did the facility follow the requirements in 265.197? (265.197)	Y	NOT APPLICABLE
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**EXISTING TANK SYSTEMS**

15. Are above ground tanks:

a) Paved, diked or curbed or otherwise enclosed to contain not less than 100% of the largest tank. (Rule 615(2)(a))	Y	[X <sup>11</sup> ] NI N/A
b) Incompatible waste or interconnected tanks must have 100% containment for each tank. (Rule 615(2)(a))	Y	NOT APPLICABLE

16. Do underground tank(s):

a) Have secondary containment and a leachate withdrawal system. (Rule 615(2)(b)(i))	Y	[X <sup>12</sup> ] NI N/A
b) Complete an inventory of wastes not less than twice a month. (Rule 615(2)(b)(ii))	Y	NOT APPLICABLE

	YES NO NI N/A
c) Leachate sampling analysis at least once per year (if b shows loss; sample w/in 24 hours). (Rule 615(2)(b)(iii))	NOT APPLICABLE

**ASSESSMENT OF EXISTING TANK SYSTEM'S INTEGRITY (265.191)**

17. Was an assessment made and certified by an independent engineer? (265.191)	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> NI N/A
--	--

**CONTAINMENT AND DETECTION OF RELEASES (265.193)**

18. Until an existing tank is upgraded to meet the secondary containment requirement in 265.193, has the facility: (265.193(I))	
a) Non-enterable underground tank, did leak test meeting requirement of 265.191(b)(5) annually: (264.193(I)(1))	NOT APPLICABLE
b) For other than non-enterable underground tanks and ancillary equipment the facility must:	
i) A tank integrity examination by an independent, qualified, registered professional engineer. (265.193(I)(2))	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> NI N/A
19. Secondary containment that meets the requirements, must be provided for: (265.193(a))	
a) New tank systems prior to being put into service (any tank installed after 7-14-86). (265.193(a)(1))	NOT APPLICABLE
b) Existing tanks used for F020, F021, F022, F023, F026, F027 prior to 1/12/90. (265.193(a)(2))	NOT APPLICABLE
c) Existing tanks w/ documentable age before 1/12/90 or tanks 15 years of age, whichever is later. (265.193(a)(3))	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> NI N/A
d) Existing tank system, w/out documented age, upgrades done by 1/12/96 unless facility is greater than 7 yrs in 1988, then containment provided before facility reaches 15 years or by 1/12/90, whichever is later. (265.193(a)(4))	NOT APPLICABLE
e) Wastes which became hazardous waste after 1/12/87. (265.193(a)(5))	NOT APPLICABLE

**NEW TANK SYSTEMS AND UPGRADED EXISTING TANK SYSTEMS**

20. Secondary containment and detection systems must have the following: (265.193(c))	
a) Tank system constructed of compatible material with sufficient strength. (265.193(c)(1))	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> NI N/A
b) Adequate foundation/base. (265.193(c)(2))	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> NI N/A
c) Leak detection system designed/operated to detect leaks w/in 24 hours. (265.193(c)(3))	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> NI N/A
d) Sloped/drained & all liquid (leaks, precipitation) removed w/in 24 hours. (265.193(c)(4))	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> NI N/A
e) Must include one or more of the following:	
i) A liner (external to tanks) and must satisfy the following requirements. (265.193(d)(1))	
A) 100% capacity of largest tank within its boundary. (265.193(e)(1)(i))	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> NI N/A
B) Prevent run-on or infiltration of precipitation unless excess of capacity. (265.193(e)(1)(ii))	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> NI N/A
C) Free of cracks or gaps. (265.193(e)(1)(iii))	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> NI N/A

		YES	NO	NI	N/A
D) Cover any area waste may come in contact with if released. (265.193(e)(1)(iv))	DEF	[X]		NI	N/A

**CEMENT LINERS ONLY**

E) Constructed with chemical resistant water stops in place at all joints. (265.193(e)(2)(iii))	DEF	[X <sup>19</sup> ] ___ NI N/A
F) Impermeable, compatible interior lining or coating. (265.193(e)(2)(iv))	DEF	[X <sup>20</sup> ] ___ NI N/A
ii) Vault systems must satisfy the following requirements. (265.193(c)(2)(I-iv))		
A) 100% capacity of the largest tank within its boundary. (265.193(e)(2)(I))	DEF	[X <sup>21</sup> ] ___ NI N/A
B) Prevent run-on or infiltration of precipitation unless excess of capacity. (265.193(e)(2)(ii))	DEF	[X] ___ NI N/A
C) Constructed with chemical resistant water stops in place at all joints. (265.193(e)(2)(iii))	DEF	[X <sup>22</sup> ] ___ NI N/A
D) Impermeable, compatible interior lining or coating. (265.193(e)(2)(iv))	DEF	[X <sup>23</sup> ] ___ NI N/A
E) If ignitable or reactive, then provide against vapor formation and ignition. (265.193(c)(2)(v))	DEF	NOT APPLICABLE
F) Provide with exterior moisture barrier. (265.193(e)(2)(vi))	DEF	NOT APPLICABLE
iii) Double wall tanks must satisfy the following requirements. (265.193(d)(3))		
A) Designed as integral structure. (265.193(e)(3)(I))	DEF	NOT APPLICABLE
B) Protect metal surface for corrosion. (265.193(e)(3)(ii))	DEF	NOT APPLICABLE
C) Capable of detecting releases within 24 hours. (265.193(e)(3)(iii))	DEF	NOT APPLICABLE
f) Ancillary equipment (note certain exclusions) must be provided with full secondary containment. (265.193)(f)	DEF	[ ] X <sup>24</sup> NI N/A

**NEW TANK SYSTEMS****DESIGN AND INSTALLATION OF NEW TANK SYSTEMS OR COMPONENTS (265.192)**

21. Facility obtain written assessment that was reviewed & certified (270.11(d)) by an independent, qualified, registered professional engineer:					
a) Design standards and considerations? (265.192(a)(1)&(5))	DEF	[ ]	X <sup>25</sup>	NI	N/A
b) Hazard characteristics of the waste(s) to be handled? (265.192(a)(2))	DEF	[X]		NI	N/A
c) Determination by a corrosion expert, if needed (external metal part in contact with soil or water)? (265.192(a)(3))	DEF	[ ]	X <sup>26</sup>	NI	N/A
d) If needed, design considerations for UST systems effected by vehicular traffic? (265.192(a)(4))	DEF	NOT APPLICABLE			
e) Tank system & component installed properly & inspected by independent engineer? (265.192(b))	DEF	[ ]	X <sup>27</sup>	NI	N/A
22. New tank/component & piping underground was backfilled w/ noncorrosive, porous, homogeneous material & carefully compacted? (265.192(c))	DEF	NOT APPLICABLE			
23. All new tanks/ancillary equipment tested for tightness before covered, enclosed, put in use? (265.192(d))	DEF	NOT APPLICABLE			

		YES	NO	NI	N/A
24. Not tight tested after a repair was made before it was covered, enclosed, before being put back in use? (265.192(d))	<u>QJ</u>	NOT APPLICABLE			
25. Is ancillary equipment supported/protected against damage & stress? (265.192(e))	<u>QK</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/> <sup>28</sup>	NI	N/A
26. Corrosion protection provided? (265.192(f))	<u>QL</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/> <sup>29</sup>	NI	N/A
27. Field fabricated corrosion protection supervised by independent expert? (265.192(f))	<u>QM</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/> <sup>30</sup>	NI	N/A
28. Were written statement kept on file at the facility and certified? (265.192(g))	<u>QN</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/> <sup>31</sup>	NI	N/A

**Footnotes:**

#1 – As shown in the pictures taken on February 27<sup>th</sup>, Double Eagle has stenciled the words “HCD Cleaner Waste Tank 12” on the tank.

#2 – As evidenced from the photos taken on February 27<sup>th</sup> in conjunction with information provided by Double Eagle personnel, Tank #12 has either overflowed or experienced a release due to faulty operation or equipment on numerous occasions.

#3 – Based on comments received from Double Eagle personnel, Tank #12 does not have control that adequately addresses spill control (e.g., check valves).

#4 – Based on comments received from Double Eagle personnel, Tank #12 does not have “functional” controls that adequately prevent overfilling Tank #12 (e.g., level sensing devices, high level).

#5 – There was no evidenced that Tank #12 had ever been taken out of service after any of these referenced occurrence where Tank #12 had either released or been overfilled.

#6 – No evidence to support the notion that any item on the tank or any change to the cleaning/preparation process had been changed as result of Tank #12 releases or overfilling.

#7 – Based on information provided by Double Eagle personnel, given the persistence of known events where the management of “caustic downturn” resulted in releases or overfilling of Tank #12 -- the integrity of the daily inspections or the standard operating practice of reporting problems is brought into question.

#8 – See footnote #7

#9 – See footnote #7

#10 – See footnote #7

#11 – As reported in September 15, 1997, Certification and tank system integrity assessment report the secondary containment can hold 21,900 gallons of liquid

#12 – The September 15, 1997, integrity assessment and certification only pertain to Tank #12 and the immediate surrounding secondary containment. The scope of this report does not extend inside the Terminal Building to cover any of the ancillary equipment that connects the cleaning/preparation process known as the “solution sump” to the outside of the building where Tank #12 is located. There was no leachate removal system visible to the inspectors during the inspection.

#13 -- Double Eagle hired Chester Engineers to perform an assessment of Tank #12 tank system. Chester Engineers completed its work and

provided a certification of Tank #12 tank system. However, the scope of the work was not inclusive of the portion of the tank system which is located outside the immediate secondary containment which surrounds Tank #12. Therefore, although an assessment and certification were on file, they do not constitute an adequate summary of the tank system as defined in 40 CFR § 260.10 and cannot be construed as complying with the 40 CFR part 265 subpart J requirements.

- #14 – This checklist item is answered “no” for the above reasons --- the work done by Chester Engineers did not include the conveyance lines located inside the Terminal Building that connected the cleaning/preparation process to the tank proper. Therefore, the product Double Eagle has provided is inadequate in complying with the Subpart J requirement.
- #15 – As reported by Chester Engineers Tank #12 was installed April 25, 1986.
- #16 – Based on the gap in information reporting the integrity assessment performed by Chester Engineers. The ancillary equipment identifiable within the Terminal Building has not been assessed for its compatibility with the caustic downturn wastestream, nor has it been assessed for the sufficiency of its strength.
- #17 – Given the persistence of known events where the operation of Tank #12 resulted in a release or resulted in being overfilled, and in conjunction with the inspectors’ observations on February 27, 2006, it is questionable that some mechanism exist for removal of the material within a 24 hour period.
- #18 – Given that the inspectors observed liquid within the secondary containment surrounding Tank #12 – this question is answered in the negative - since it wasn’t noted in the daily tank inspection reports
- #19 – The Chester Engineers’ integrity assessment specifically addresses water stops and certified to them meeting the tank system requirements. The EPA inspector did not see any indication of failure of the water stops during his observation of the secondary containment surrounding Tank #12. It is unknown whether water stops are a necessary part of the tank system contained within the Terminal Building where the cleaning/prepping process, e.g., “solution sump”, is connected to the tank system.
- #20 – The Chester Engineers’ integrity assessment specifically addresses the impermeable coating [fiberglass] and its compatibility but only to the extent that its presence is associated with the tank proper. It is unknown whether the ancillary equipment which conveys “caustic downturn” located within the Terminal Building complies with the hazardous waste tank standards.
- #21 – The Chester Engineers’ integrity assessment specifies the secondary containment for Tank #12 will hold approximately 21,900 gallons.
- #22 – See footnote #19. However, once again, the scope of the integrity assessment was narrowly defined to cover Tank #12 and the secondary containment immediately surrounding the tank, and did not investigate nor address the portions of the tank system inside the Terminal Building.
- #23 – See footnote #20.
- #24 – The Chester Engineer’s integrity assessment did not consider the portion of the tank system located within the Terminal Building.
- #25 – Yes for Tank #12 and the secondary containment immediately surrounding the tank but unknown for the unspecified portions of the tank system located within the Terminal Building.
- #26 – Yes for Tank #12 and the secondary containment immediately surrounding the tank but unknown for the unspecified portions of the tank system located within the Terminal Building
- #27 – Yes for Tank #12 and the secondary containment immediately surrounding the tank but unknown for the unspecified portions of the tank system located within the Terminal Building
- #28 – Yes for Tank #12 and the secondary containment immediately surrounding the tank but unknown for the unspecified portions of tank system located within the Terminal Building



- #29 – This was answered “No” because it is unknown whether corrosion protection is necessary for the ancillary equipment and could not be determined by reviewing the integrity assessment whether the tank system had been equipped with it for the portion of the tank system located within the Terminal Building.
- #30 – Undeterminable based on the field observations of the inspectors. This information was not included in the scope of the integrity assessment performed by Chester Engineers.
- #31 – Undeterminable based on the field observations of the inspectors. This information was not included in the scope of the integrity assessment performed by Chester Engineers.

## MANAGEMENT METHOD CODES

Management Method codes describe the type of hazardous waste management system used to treat, recover, or dispose a hazardous waste. Select the final substantive method used. Review the groups and pick the appropriate code.

Code	Management Method Code Group
<b>Reclamation and Recovery</b>	
H010	Metals recovery including retorting, smelting, chemical, etc.
H020	Solvents recovery (distillation, extraction, etc)
H039	Other recovery or reclamation for reuse including acid regeneration, organics recovery, etc. (specify in comments)
H050	Energy recovery at this site - used as fuel (includes on-site fuel blending before energy recovery; report only this code)
H061	Fuel blending prior to energy recovery at another site (waste generated either on site or received from off site)
<b>Destruction or Treatment Prior to Disposal at Another Site</b>	
H040	Incineration - thermal destruction other than use as a fuel (includes any preparation prior to burning)
H071	Chemical reduction with or without precipitation (includes any preparation or final processes for consolidation of residuals)
H073	Cyanide destruction with or without precipitation (includes any preparation or final processes for consolidation of residuals)
H075	Chemical oxidation (includes any preparation or final processes for consolidation of residuals)
H076	Wet air oxidation (includes any preparation or final processes for consolidation of residuals)
H077	Other chemical precipitation with or without pre-treatment (includes processes for consolidation of residuals)
H081	Biological treatment with or without precipitation (includes any preparation or final processes for consolidation of residuals)
H082	Adsorption (as the major component of treatment)
H083	Air or steam stripping (as the major component of treatment)
H101	Sludge treatment and/or dewatering (as the major component of treatment; not H071-H075, H077, or H082)
H103	Absorption (as the major component of treatment)
H111	Stabilization or chemical fixation prior to disposal at another site (as the major component of treatment; not H071-H075, H077, or H082)
H112	Macro-encapsulation prior to disposal at another site (as the major component of treatment; not reportable as H071-H075, H077, or H082)
H121	Neutralization only (no other treatment)
H122	Evaporation (as the major component of treatment; not reportable as H071-H083)
H123	Settling or clarification (as the major component of treatment; not reportable as H071-H083)
H124	Phase separation (as the major component of treatment; not reportable as H071-H083)
H129	Other treatment (specify in comments; not reportable as H071-H124)

STATE OF MICHIGAN



JOHN ENGLER, Governor

**DEPARTMENT OF ENVIRONMENTAL QUALITY**

*"Better Service for a Better Environment"*

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

INTERNET: [www.deq.state.mi.us](http://www.deq.state.mi.us)

RUSSELL J. HARDING, Director

REPLY TO:

SE MICHIGAN DISTRICT OFFICE  
38980 SEVEN MILE RD  
LIVONIA MI 48152-1006

April 22, 1999

Mr. Andrew Yaksic  
Environmental Engineer  
Double Eagle Steel Coating Company  
3000 Miller Road  
Dearborn, MI 48120

Dear Mr. Yaksic:

SUBJECT: MID 981 092 190

On April 13, 1999, staff of the Department of Environmental Quality (DEQ) and the United States Environmental Protection Agency (U.S. EPA) conducted an inspection of Double Eagle Steel Coating Company (hereafter Facility), located at 3000 Miller Road, Dearborn, Michigan, to evaluate compliance of that facility with Part 111, Hazardous Waste Management, Michigan Compiled Laws (MCL) 324.11101 et seq., and Part 121, Liquid Industrial Wastes, MCL 324.12101 et seq. of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA); Subtitle C of the federal Resource, Conservation and Recovery Act of 1976, as amended, and any administrative rules or regulations promulgated pursuant to these acts. A copy of the completed inspection form can be obtained by contacting this office. Copies of the pictures taken will be forwarded when the film is developed.

As a result of the inspection, staff of the DEQ has determined that the Facility is in violation of the following:

1. Hazardous waste manifests prepared by the generator shall contain the name and EPA identification number of the transporter (Part 111, Rule 304(2)(c) & 40 CFR 262.20(a)). On manifest MI40619556 dated July 18, 1997, the transporter names differ from generator 1<sup>st</sup> copy and 2<sup>nd</sup> copy. Please document this has been corrected, and corrected copies have been sent to the DEQ at the address listed on the manifest, and to the designated facility.
2. A generator of liquid industrial waste shall certify at the time the transporter picks up liquid industrial waste the information contained on the manifest is factual by signing the manifest. This certification is to be by the generator or his or her authorized representative as required by Section 12103(1)(f). This was not done on manifest MI4615589 dated June 22, 1997. Please submit a corrected copy of that manifest.

3. The notice must include (Part 111, Rule 311(1) & 40 CFR 268.7(a)(1)(i-v) or 268.7(a)(2)(i)(A-D) or 268.7(a)(3)(i-iv)):
- a) The EPA hazardous waste number.
  - b) Whether the waste is a wastewater or non-wastewater as defined in 40 CFR 268.2(d) & (f).
  - c) The subcategory of the waste (such as D003 reactive cyanide).
  - d) The manifest number associated with the shipment.
  - e) The waste analysis data, where available.
  - f) The waste constituents that the treater will monitor, if monitoring will not include all regulated constituents, for F001 - F005, F039, D001, D002, D012-D043.

**UNLESS,**

- g) The generator/treater correctly claims in the same notice, they are going to monitor for ALL regulated constituents in the waste in lieu of the generator (40 CFR 268.7(a)(1)(ii)).
- h) The underlying hazardous waste constituents (except vanadium and zinc), reasonably expected to be present at the generation point, above UST standards for D001, D002 and TCLP organics (40 CFR 268.48).

Manifest MI4633480 dated December 3, 1998 was missing the hazardous waste number. Please document a corrected copy has been sent to the DEQ at the address noted on the manifest, to the transporter, and to the designated facility.

4. Personnel must take part in annual review of the initial hazardous waste training as required in 40 CFR 265.16(c) (Part 111, Rule 306(1)(d) & 40 CFR 262.34(a)(4)). No annual review has been conducted since 1997. Please document an annual review has now been performed.
5. The contingency plan must contain the following information:
- a) Action personnel will take to respond to fires, explosions, or unplanned release of hazardous waste (Part 111, Rule 306(1)(d) & 40 CFR 265.52(a) & (b)).
  - b) Arrangements made or attempted to be made with local police departments, fire departments, hospitals, contractors, state and local emergency responders for emergency services (Part 111, Rule 306(1)(d) & 40 CFR 265.52(c)) & (40 CFR 265.37(a) & (b)).
  - c) Name, addresses and phone (office and home) numbers of all persons qualified to act as the emergency coordinator(s) and specify who is primary and then the alternates (Part 111, Rule 306(1)(d) & 40 CFR 265.52(d)).
  - d) List of the emergency equipment at the facility, including location, physical description and capabilities (Part 111, Rule 306(1)(d) & 40 CFR 265.52(e)).

- e) An evacuation plan for personnel that includes the signal(s) to be used to begin evacuation, evacuation routes and alternate evacuation routes (Part 111, Rule 306(1)(d) & 40 CFR 265.52(f)).

The Facility is required to amend the contingency plan and emergency procedures whenever they fail in an emergency, when there are changes in the regulations, the emergency coordinators or the emergency equipment as required in 40 CFR 265.54 (Part 111, Rule 306(1)(d) & 40 CFR 265.54). The primary emergency coordinator listed, Mr. Stewart Fox, no longer works at the Facility. The emergency equipment was listed as located in the crash cart in the spare parts building. There should be a reference to where the crash cart is shown on a diagram on page 18. Please document these pages have been updated and distributed to the emergency organizations.

- 6. A universal waste small quantity handler shall label the lamps or containers in which the lamps are contained with the words "universal waste electric lamps," "waste electric lamps," or "used electric lamps" in accordance with Rule 228(4)(c)(iv). The waste light bulbs were being stored in unlabeled cardboard containers. Please document they are now labeled as required.
- 7. Storage of liquid industrial waste either at the location of generation, under the control of the transporter, or at the designated facility shall be protected from weather, fire, physical damage, and vandals. All vehicles, containers, and tanks used to hold liquid industrial waste shall be closed or covered, except when necessary to add or remove waste, to prevent the escape of liquid industrial waste as required by Section 12113(1). The secondary containment for the oil and water separator and for the used oil tanks contained approximately four inches of waste oil and water. It was represented that Deutsch cleans out the containment once a week. This is not adequate. The containment is being used as a back-up tank. Tanks must be closed or covered except when necessary to add or remove waste. Also, it was represented that oil gets into the containment from the lines freezing or whenever a tank is overfilled. The storage of the waste is not protected from the weather if this occurs. The Facility needs to evaluate the overall tank system. The oil water separator's concrete is showing wear on the outside. Some of the wires in the concrete are visible. One of the waste oil tanks that had insulation around it had been burned off in an electrical fire. Please document how the storage of oil will change to be in compliance with the above requirements.
- 8. The owner or operator must inspect, where present, at least once each operating day:
  - a) Overfill/spill control equipment;
  - b) The aboveground portions of the tanks system;
  - c) Data gathered from monitoring equipment and leak-detection equipment;
  - d) The construction materials and area immediately surrounding the externally accessible portions of the tank system including secondary containment structures as required by 40 CFR 265.195(a)(1-4).

These inspections must be documented as required by 40 CFR 265.195(c). It was represented that inspections of the waste acid tank were done monthly. Please document daily inspections of the tank are now being conducted by providing a copy of a completed checklist.

9. For all new tank systems or components, prior to their being put into service and for existing tank systems within the timelines defined by 40 CFR 265.193(a) must have secondary containment that is designed and installed to completely surround the tank and to cover all surrounding earth likely to come into contact with the waste if released from the tanks (capable of preventing lateral as well as vertical migration of the waste) [40 CFR 265.193(a)(1) and 40 CFR 265.193(e)(1)(iv)]. Due to the close horizontal proximity of the waste acid to the edge of the secondary containment area, the tank appears to not have adequate protection from horizontal migration of the waste. Enclosed is a brochure on squirt protection. Please indicate how you will either modify the placement of the tanks or in another way modify the secondary containment to provide protection from horizontal migration of the waste or provide documentation that the tanks now meet the guidelines. An alternative to updating the existing waste acid tank is to install a new tank to meet the requirements and use it just for when the waste will need to be shipped off site.
10. Until an existing tank is upgraded to meet the secondary containment requirements in 265.193, the Facility must conduct an annual leak test that meets the requirements of 265.191(b)(5) or an internal inspection or other tank integrity examination by an independent, qualified, registered professional engineer as required by 40 CFR 265.193(I)(2). This has not been done. Please document this has been done or that the Facility will install a new tank system meeting the requirements. If the Facility chooses to install a new tank, please provide a timeline for installation.
11. A generator of hazardous waste shall keep all records readily available for review and inspection by the DEQ or the authorized representative of the department of public health, a peace officer, or a representative of the U.S. EPA. Please provide the following which were not available for review during the inspection:
  - a) Documentation that the tank system was constructed of compatible material with sufficient strength and has an adequate foundation/base (40 CFR 265.193(c)).
  - b) Documentation that the cement liner was constructed with chemical resistant water stops in place at all joints (40 CFR 265.193(e)(2)(iii)).

The Facility must respond to the violations noted in this letter. Please submit documentation to this office regarding those actions taken to address the violations by **May 28, 1999**. The DEQ will evaluate the response, determine the Facility's compliance status and notify you of this determination.



Mr. Andrew Yaksic

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April 22, 1999

This letter of warning does not preclude nor limit the DEQ's ability to initiate any other enforcement action, under state or federal law, as deemed appropriate.

Enclosed for your information is a handout explaining the Pollution Incident Prevention Plan required for certain facilities under Part 31, Water Resources Protection, MCL 324.3101 et seq. of the NREPA; a short information sheet on waste minimization; an information sheet on recycling fluorescent bulbs; and information on polychlorinated biphenyl (PCB) ballasts.

If you have any questions, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Bonnie J. Pawloske".

Bonnie J. Pawloske  
Environmental Quality Analyst  
Waste Management Division  
734-953-1408

Enclosures

cc: Ms. Diane Sharrow, U.S. EPA  
Dr. Benedict N. Okwumabua, WMD, DEQ

## JOINT INSPECTION MEMORANDUM

**FACILITY NAME:** Double Eagle Steel Coating Company  
**USEPA ID NO:** MID 981 092 190  
**FACILITY ADDRESS:** 3000 Miller Rd., Dearborn, MI  
**FACILITY TYPE:** Large Quantity Generator  
**FACILITY REPRESENTATIVE:** Andrew Yaksic, Environmental Engineer  
WWTP and Environmental Manager  
**USEPA INSPECTOR:** Diane Sharrow  
**STATE INSPECTOR:** Bonnie Pawloske  
**DATE OF INSPECTION:** April 13, 1999

The inspection was conducted to determine compliance with the Part 111, Hazardous Waste Management, Michigan Compiled Laws (MCL) 324.11101 et seq., and Part 121, Liquid Industrial Wastes, MCL 324.12101 et seq., of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, as well as Subtitle C of the Federal Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid Waste Amendments (HSWA), of 1984, 42 U.S.C..

The Facility electrogalvanizes steel for the automobile industry, and is a joint business venture between Rouge Steel and U.S. Steel. The wastes generated at this location include D002, D003, D007, State waste codes, as well as oily water (Attachment). Fluorescent bulbs are recycled under the universal waste rule.

The State of Michigan is not yet authorized for the air emission rules in Title 40 of the Federal Code of Regulations (40 CFR), 265 Subpart CC. However, since the Facility does not generate or manage any hazardous waste subject to the Subpart CC rules, a Federal inspection checklist for Subpart CC was not completed. To comply with the *Small Business and Regulatory Fairness Act*, (SBREFA), the Facility was provided with a copy of the U.S. EPA Information Sheet entitled, *Information for Small Businesses*, (Attachment).

Violations at the Facility included mismanagement of a tank being used for the accumulation of hazardous waste. The State will copy this Agency on the Notice of Violation Letter to be sent to the Facility. A copy of the State letter will be attached to this Memorandum upon receipt.

Attachments

## Information for Small Businesses

If you are small business as defined by the Small Business Administration (defined at 13 C.F.R. 121.201; in most cases, this means a business with 500 or fewer employees), below is information you may find helpful.

The United States Environmental Protection Agency (EPA) offers small businesses a wide variety of compliance assistance resources and tools designed to assist businesses to comply with federal and state environmental laws. These resources can help businesses understand their obligations, improve compliance and find cost-effective ways to comply through the use of pollution prevention and other innovative technologies.

### Websites

EPA offers a great deal of compliance assistance information and materials for small businesses on the following Websites, available through public libraries:

⇒ <a href="http://www.epa.gov">www.epa.gov</a>	<i>EPA's Home Page</i>
⇒ <a href="http://www.smallbiz-enviroweb.org">www.smallbiz-enviroweb.org</a>	<i>EPA's Small Business Home Page</i>
⇒ <a href="http://www.smallbiz-enviroweb.org/state.html">www.smallbiz-enviroweb.org/state.html</a>	<i>List of State Contacts</i>
⇒ <a href="http://www.epa.gov/ttn/sbap">www.epa.gov/ttn/sbap</a>	<i>Small Business Assistance Programs</i>
⇒ <a href="http://www.epa.gov/oeca/polguid/index.html">www.epa.gov/oeca/polguid/index.html</a>	<i>Enforcement Policy and Guidance</i>
⇒ <a href="http://www.epa.gov/oeca/smbusi.html">www.epa.gov/oeca/smbusi.html</a>	<i>Small Business Policy</i>
⇒ <a href="http://www.epa.gov/oeca/oc">www.epa.gov/oeca/oc</a>	<i>Compliance Assistance Home Page</i>
⇒ <a href="http://www.epa.gov/oeca/ccsmd/commpull.html">www.epa.gov/oeca/ccsmd/commpull.html</a>	<i>Small Businesses and Commercial Services</i>
⇒ <a href="http://www.epa.gov/oeca/ccsmd/mun.html">www.epa.gov/oeca/ccsmd/mun.html</a>	<i>Small Communities Policy</i>

### Hotlines

EPA sponsors approximately 89 hotlines and clearinghouses that provide free and convenient avenues to obtain assistance with environmental requirements. EPA's Small Business Ombudsman Hotline can provide you with a list of all the hot lines and assist you with determining which hotline will best meet your needs. Key hotlines that may be of interest to you include:

⇒ EPA's Small Business Ombudsman.....	(800) 368-5888
⇒ RCRA/UST/CERCLA Hotline.....	(800) 424-9346
⇒ Toxics Substances and Asbestos Information.....	(202) 554-1404
⇒ Safe Drinking Water.....	(800) 426-4791
⇒ Stratospheric Ozone/CFC Information.....	(800) 296-1996
⇒ Clean Air Technical Center.....	(919) 541-0800
⇒ Wetlands Hotline.....	(800) 832-7828

### Compliance Assistance Centers

EPA has established national compliance assistance centers, in partnership with industry, academic institutions, and other federal and state agencies, that provide on line and fax back assistance services in the following sectors heavily populated with small businesses:

- ⇒ Access to All Centers ([www.epa.gov/oeca/mfcac.html](http://www.epa.gov/oeca/mfcac.html))
- ⇒ Metal Finishing (1-800-AT-NMFRC or <http://www.nmfrc.org>)

D002, D003, D007



# Facility Generation Detail

3/8/99 12:43:03 PM

Date Range : 1/1/98 to 3/1/99  
 Site ID : MID981092190  
 Site Name : NONE SPECIFIED  
 Site Address : NONE SPECIFIED  
 City : NONE SPECIFIED  
 County : NONE SPECIFIED  
 Country : NONE SPECIFIED

	Waste Code	Gallons	Pounds	CYDS	TONS
DOUBLE EAGLE STEEL COATING					
MID981092190					
3000 MILLER RD					
DEARBORN MI					
January					
1/1/98	D002	10000.000	0.000	0.000	40.000
1/2/98	D002	9250.000	0.000	0.000	37.000
1/5/98	003D	0.000	0.000	10.000	10.000
	D002	10000.000	0.000	0.000	40.000
1/6/98	003D	2500.000	0.000	11.000	21.000
	D002	39350.000	0.000	0.000	157.400
1/7/98	D002	45700.000	0.000	0.000	182.800
1/8/98	003D	0.000	0.000	20.000	20.000
	D002	9500.000	0.000	0.000	38.000
1/9/98	003D	0.000	0.000	10.000	10.000
	029L	1.000	0.000	0.000	0.004
	D002	10000.000	0.000	0.000	40.000
	D003	0.000	1.000	0.000	0.001
	U057	1.000	0.000	0.000	0.004
	U151	0.000	1.000	0.000	0.001
1/10/98	D002	10000.000	0.000	0.000	40.000
1/12/98	003D	0.000	0.000	10.000	10.000
	D002	10000.000	0.000	0.000	40.000
	D007	3300.000	0.000	0.000	13.200
1/15/98	003D	0.000	0.000	14.000	14.000

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		Waste Code	Gallons	Pounds	CYDS	TONS
April						
	4/1/98	003D	2500.000	0.000	0.000	10.000
	4/3/98	003D	0.000	0.000	40.000	40.000
		D002	5000.000	0.000	0.000	20.000
	4/6/98	003D	740.000	0.000	0.000	2.960
	4/7/98	D002	3000.000	0.000	0.000	12.000
	4/9/98	003D	6000.000	0.000	0.000	24.000
	4/10/98	003D	0.000	0.000	10.000	10.000
	4/13/98	003D	0.000	0.000	10.000	10.000
	4/17/98	003D	0.000	0.000	10.000	10.000
	4/24/98	003D	0.000	0.000	10.000	10.000
	4/27/98	003D	0.000	0.000	10.000	10.000
	4/29/98	003D	0.000	0.000	10.000	10.000
	Total for the month of April		17240.000	0.000	100.000	
May						
	5/1/98	003D	0.000	0.000	10.000	10.000
	5/4/98	003D	0.000	0.000	30.000	30.000
	5/8/98	003D	0.000	0.000	10.000	10.000
	5/15/98	003D	0.000	0.000	10.000	10.000
	5/20/98	003D	2000.000	0.000	0.000	8.000
		D002	28000.000	0.000	0.000	112.000
	5/21/98	003D	2581.000	0.000	20.000	30.324
		D002	3000.000	0.000	0.000	12.000
	5/22/98	D002	3000.000	0.000	0.000	12.000
	5/26/98	003D	3300.000	0.000	20.000	33.200
		D002	7700.000	0.000	0.000	30.800
	5/27/98	D002	9300.000	0.000	0.000	37.200
	5/29/98	003D	0.000	0.000	7.000	7.000
	Total for the month of May		58881.000	0.000	107.000	

	Waste Code	Gallons	Pounds	CYDS	TONS
July					
7/1/98	003D	900.000	0.000	0.000	3.600
7/2/98	D002	10000.000	0.000	0.000	40.000
7/3/98	003D	0.000	0.000	25.000	25.000
7/6/98	003D	0.000	0.000	5.000	5.000
7/7/98	D002	31200.000	0.000	0.000	124.800
7/8/98	003D	2200.000	0.000	0.000	8.800
7/9/98	003D	1000.000	0.000	0.000	4.000
	D002	3200.000	0.000	0.000	12.800
7/10/98	003D	0.000	0.000	20.000	20.000
7/13/98	003D	0.000	0.000	30.000	30.000
	D007	3000.000	0.000	0.000	12.000
7/14/98	003D	0.000	0.000	15.000	15.000
	D007	3200.000	0.000	0.000	12.800
7/15/98	003D	0.000	0.000	15.000	15.000
	D002	1300.000	0.000	0.000	5.200
	D007	5450.000	0.000	0.000	21.800
7/17/98	003D	1300.000	0.000	10.000	15.200
7/21/98	003D	0.000	0.000	25.000	25.000
	D002	3000.000	0.000	0.000	12.000
7/22/98	D002	3000.000	0.000	0.000	12.000
7/24/98	003D	0.000	0.000	7.000	7.000
7/27/98	003D	0.000	0.000	13.000	13.000
7/28/98	003D	0.000	0.000	10.000	10.000
7/31/98	003D	3800.000	0.000	0.000	15.200
Total for the month of July		72550.000	0.000	175.000	



		Waste Code	Gallons	Pounds	CYDS	TONS
October						
	10/12/98	D002	2800.000	0.000	0.000	11.200
	10/22/98	D002	32000.000	0.000	0.000	128.000
	10/23/98	D002	39200.000	0.000	0.000	156.800
	10/25/98	D002	36000.000	0.000	0.000	144.000
	10/26/98	D002	10000.000	0.000	0.000	40.000
	Total for the month of October		120000.000	0.000	0.000	
November						
	11/3/98	D002	60000.000	0.000	0.000	240.000
	11/4/98	D002	40000.000	0.000	0.000	160.000
	11/10/98	D007	1000.000	0.000	0.000	4.000
	Total for the month of November		101000.000	0.000	0.000	
December						
	12/2/98	D002	3500.000	0.000	0.000	14.000
	12/3/98	D002	13522.000	0.000	0.000	54.088
	12/10/98	D002	2400.000	0.000	0.000	9.600
	12/15/98	D002	3000.000	0.000	0.000	12.000
	12/18/98	D002	3000.000	0.000	0.000	12.000
	Total for the month of December		25422.000	0.000	0.000	
January						
	1/25/99	D002	6000.000	0.000	0.000	24.000
	1/26/99	D002	3000.000	0.000	0.000	12.000
	1/28/99	D002	3000.000	0.000	0.000	12.000
	Total for the month of January		12000.000	0.000	0.000	
Total for Generator MID981092190			704395.000	2.000	993.000	3810.581

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**Waste Shipments from Spill Containment/Cleaner Tank Skim  
September 2005 to February 2006**

**Hazardous**

Date	Volume	Area	TSD	Code
2/17/06	5700	Secondary Containment	EQD	D002
2/17/06	1800	Secondary Containment	EQD	D002
1/12/06	3000	Cleaner Tank Skim	EQD	D002
1/12/06	3000	Cleaner Tank Skim	EQD	D002
11/7/05	2800	Secondary Containment	EQD	D002

**Non Hazardous**

Date	Volume	Area	TSD	Code
1/5/2006	3000	Secondary Containment	Usher	029L
1/5/2006	3000	Secondary Containment	Usher	029L
11/9/05	2800	Secondary Containment	Usher	029L
11/4/2005	2800	Secondary Containment	Usher	029L
11/4/2005	2800	Secondary Containment	Usher	029L
11/4/2005	2800	Secondary Containment	Usher	029L
11/4/2005	2800	Secondary Containment	Usher	029L
11/4/2005	2800	Secondary Containment	Usher	029L
11/10/05	2200	Secondary Containment	Usher	029L
9/1/2005	3500	Secondary Containment	Usher	029L
9/1/2005	3500	Secondary Containment	Usher	029L
9/9/2005	2500	Secondary Containment	Usher	029L
9/26/05	3500	Secondary Containment	Usher	029L
9/26/05	3500	Secondary Containment	Usher	029L

9/12/05 2000  
9/13/05 3500  
9/13/05 2500

Exhibit C

Look for  
MI 9509258  
date 09/09/05

Approval #

071205-0

HF041953

Profile for  
downstream  
coustic

Profile 070202

From EQ

Get

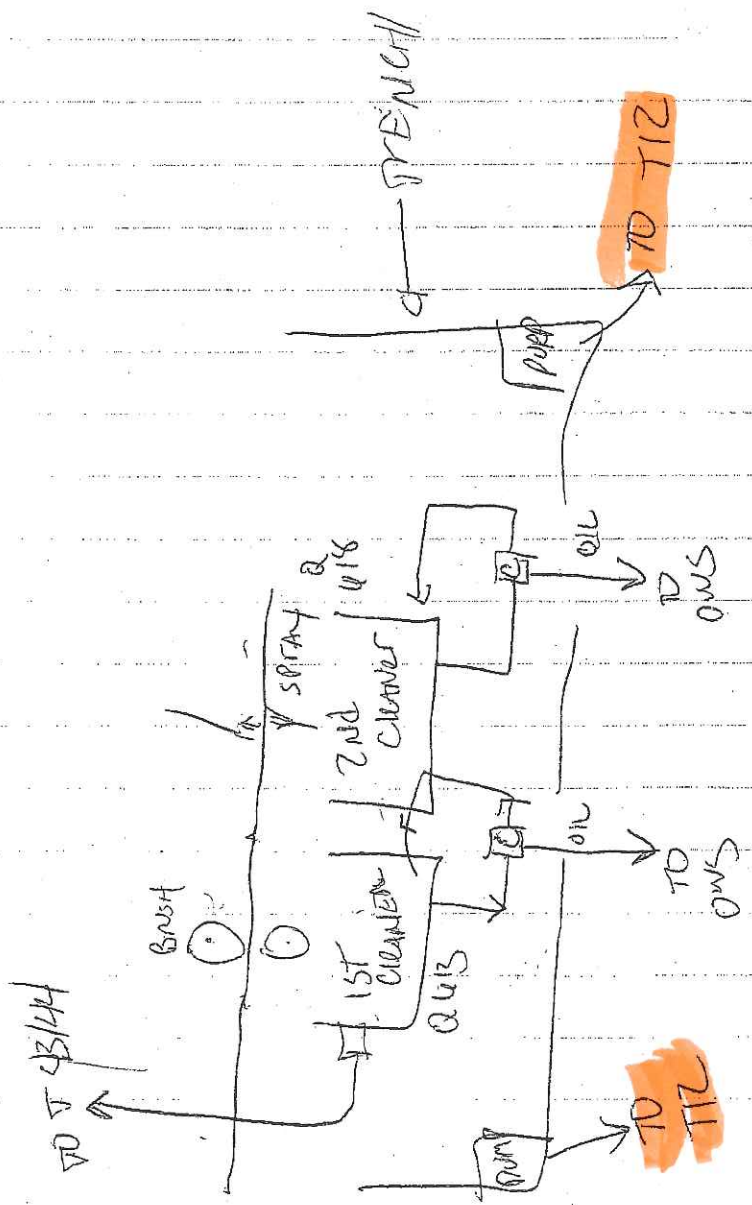
- Waste profile  
- full list of shipments  
for 3 years

Usher Oil  
Approval # 071205-0

also  
2 loads picked up  
on 02/20/06  
Box J & "dike"

2800 gal MI 9509383  
2800 gal MI 9509379

Given to Jim D  
or 03/07/2006  
by Mark  
W. Swintowski





### Severstal N.A. & Rouge Steel

Severstal and its U.S. affiliate, Severstal North America Inc., have completed the acquisition of substantially all the assets of Rouge Industries Inc. and its primary operating subsidiary, Rouge Steel Co.

1. Rouge Steel's production and maintenance employees, represented by the United Auto Workers, ratified a labor agreement in late January.

Alexey Mordashov, CEO of Severstal Group Holding, says this acquisition is an important milestone in the global consolidation of the steel industry. "We believe the performance of the former Rouge Steel Co. operations can be substantially improved with reasonably limited investments."

Severstal N.A. also has acquired Rouge's 48 percent interest in Spartan Steel Coating, a hot-dip galvanizing joint venture with Worthington Industries Inc.

Soon, the company's Russian and American colleagues will finalize a plan for the financial improvement of the former Rouge Steel assets. "We are interested in a stable and long-running development of our American enterprise, as well as positioning Severstal North America as a reliable and competitive supplier of high-quality steel sheets for the automotive industry."

Vadim Makhov, Severstal Group's deputy general director, has been named chairman of Severstal North America Inc.

Severstal is working with U.S. Steel to forge a continued partnership in Double Eagle Steel Coating Co. U.S. Steel and Rouge were each 50 percent owners in Double Eagle, which supplies electrogalvanized steel sheet to the automotive industry.

Severstal has agreed to assume Rouge Steel's iron ore pellet supply contract with Cleveland-Cliffs Inc., with minimal modifications. The contract with Rouge provided that Cliffs would be the company's sole supplier of pellets through 2012. Cliffs sold 3 million tons of pellets to Rouge last year.

HCD  
Recirculation  
TANK

Sludge from WWT PRESS  
 $Zn(OH)_2$

Process  
loc

NEAR  
NORTH  
MOTOR  
ROOM

12  
TANK - 20,000 gal

for beneficial  
use

if oil → (W as DOOR  
then

if low in oil  
then goes to

Dynacool (TSD)

for  
pH  
adjustment

Bill of  
lading

Just  
control  
density  
cleaned  
586 NAD

North side  
diluted  
to 1570

4th Snake Pit

Moer washing alloy  
Skim  
Every 2 weeks  
go down for  
outage

Doiseth

Doisich

Skim

But All

Every 3 months

completely  
change out

Conductivity  
Run's  
WW Dep't  
UNDERNEATH  
2 plating  
tanks

Solution

Chemicals

Bld. Basement

cell washing  
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(D007/D002)

See Michigan  
Disposal  
Waste Treatment  
Plant  
Profile

Bob

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or  
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November 14, 2006

3000 Miller Road  
Dearborn, Michigan 48120  
Telephone (313) 203-9800

James A. Day  
Environmental Quality Analyst  
Waste and Hazardous Materials Division  
Michigan Department of Environmental Quality  
South East Michigan District Office  
27700 Donald Court  
Warren, MI 48092-2793

**Re: Double Eagle Steel Coating Company: MID981092190**

Dear Mr. Day:

Double Eagle Steel Coating Company ("DESCC") is writing to provide additional analytic data regarding the characterization of waste streams requested by MDEQ. We had previously provided characterization data for material from Tank 12, from Tanks 43 and 44, and for filter cake from zinc plating. We are now writing to enclose analytic data from the filter cake produced in the plating solution filter press during alloy plating operations.

Please direct any inquiries regarding the enclosed material to our Environmental Engineer, David McMahon, at 313-203-9829.

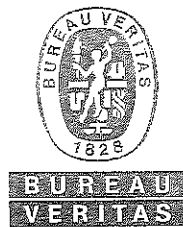
Sincerely,

  
Tom Kevin  
Plant Manager

Enclosure

cc: Mr. Duncan Campbell, U.S. EPA (w/encl)  
Mr. Donald S. Windeler                   "  
Robert F. Casselberry, Esq.           "  
Scott R. Dismukes, Esq.               "





October 26, 2006

Bob Zarb  
DOUBLE EAGLE STEEL COATING COMPANY  
3000 Miller Road  
Dearborn, MI 48120-

Clayton Work Order No. 06100984

Reference:

Dear Bob Zarb:

Clayton Group Services received 1 sample on 10/20/2006 for the analyses presented in the following report.

Enclosed is a copy of the Chain-of-Custody record, acknowledging receipt of these samples. Please note that any unused portion of the samples will be discarded 30 days after the date of this report, unless you have requested otherwise.

This material is confidential and is intended solely for the person to whom it is addressed. If this is received in error, please contact the number provided below.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact a Client Services Representative at (800) 806-5887.

Sincerely,

Karen Coonan  
Client Services Representative

cc:



## CASE NARRATIVE

Date: 26-Oct-06

---

Client: DOUBLE EAGLE STEEL COATING COMPANY

Project:

Work Order No 06100984

---

The results of this report relate only to the samples listed in the body of this report and the results meet all the requirements of the NELAC standards. All quality control results associated with this sample set were within acceptable limits and/or do not adversely affect the reported results, unless otherwise noted below.

Samples were received at the laboratory at an average temperature of 3.5 °C.



## ANALYTICAL RESULTS

Date: 26-Oct-06

---

Client:	DOUBLE EAGLE STEEL COATING COMP	Client Sample ID:	DOOR 10 FILTER CAKE (ALLOY)
Work Order No:	06100984	Tag Number:	
Project:		Collection Date:	10/19/2006 9:15:00 AM
Lab ID:	06100984-001A	Matrix:	SOLID

---

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed
SW-846 METHOD 1030						Analyst: RAS
Ignitability	Negative	NA		Positive/Negative	1	10/25/2006
PH, SOIL OR WASTE; METHOD EPA 9045C						Analyst: MEN
pH	3.9	1.0		pH Units	1	10/24/2006 5:27:00 PM
ASTM D2216						Analyst: JRH
Percent Moisture	32	NA		wt%	1	10/24/2006
REACTIVE CYANIDE, EPA SW 846 CHAPTER 7.3.3.2						Analyst: CLH
Reactive Cyanide	ND	0.15		mg/Kg-dry	1	10/25/2006
REACTIVE SULFIDE; EPA SW 846 CHAPTER 7.3.4.2						Analyst: CLH
Reactive Sulfide	ND	100		mg/Kg-dry	1	10/24/2006

---

Qualifiers:

- ND - Not Detected at the Reporting Limit (RL).
- J - Analyte detected below the Reporting Limit
- B - Analyte detected in the associated Method Blank
- \* - Value exceeds Maximum Contaminant Level

- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range
- T - Tentatively Identified Compound (TIC)



## ANALYTICAL RESULTS

Date: 26-Oct-06

---

Client:	DOUBLE EAGLE STEEL COATING COMP	Client Sample ID:	DOOR 10 FILTER CAKE (ALLOY)
Work Order No:	06100984	Tag Number:	
Project:		Collection Date:	10/19/2006 9:15:00 AM
Lab ID:	06100984-001B	Matrix:	LEACHATE

---

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed
						Analyst: RS
ICP METALS; LEACHATE: METHOD EPA 1311/6010B						
Arsenic	ND	0.10		mg/L	1	10/25/2006
Barium	0.18	0.10		mg/L	1	10/25/2006
Cadmium	ND	0.050		mg/L	1	10/25/2006
Chromium	1.2	0.10		mg/L	1	10/25/2006
Lead	0.14	0.10		mg/L	1	10/25/2006
Selenium	ND	0.20		mg/L	1	10/25/2006
Silver	ND	0.020		mg/L	1	10/25/2006
						Analyst: RS
TCLP MERCURY; METHOD EPA 1311/7470A						
Mercury	ND	0.0010		mg/L	1	10/25/2006

---

Qualifiers:

ND - Not Detected at the Reporting Limit (RL)

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B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

T - Tentatively Identified Compound (TIC)

## Clayton Group Services

Date: 26-Oct-06

CLIENT: DOUBLE EAGLE STEEL COATING CO

Work Order: 06100984

Project:

## QC SUMMARY REPORT

Method Blank

Sample ID	MB-26571	Batch ID:	26571	Units:	mg/L	Analysis Date	10/25/2006	Prep Date:	10/25/2006		
Client ID:		Run ID:	ME_VA2B_061025B	SeqNo:	1070594						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.1									
Barium	ND	0.1									
Cadmium	ND	0.05									
Chromium	ND	0.1									
Lead	ND	0.1									
Selenium	ND	0.2									
Silver	ND	0.02									

Sample ID	MB-26570	Batch ID:	26570	Units:	mg/L	Analysis Date	10/25/2006	Prep Date:	10/25/2006		
Client ID:		Run ID:	ME_VA2B_061025A	SeqNo:	1070566						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.001									

Sample ID	MB-R89815	Batch ID:	R89815	Units:	pH Units	Analysis Date	10/24/2006 5:26:00 PM	Prep Date:			
Client ID:		Run ID:	WC_OR19S_061024B	SeqNo:	1070347						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	5.86	1									

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: DOUBLE EAGLE STEEL COATING CO

Work Order: 06100984

Project:

## QC SUMMARY REPORT

Method Blank

Sample ID LB 89846	Batch ID: R89846	Units: mg/Kg	Analysis Date 10/25/2006	Prep Date:							
Client ID:	Run ID: WC_PE10J_061025B	SeqNo: 1070734									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Cyanide	ND	0.1									

Sample ID lb 89845	Batch ID: R89845	Units: mg/Kg	Analysis Date 10/24/2006	Prep Date:							
Client ID:	Run ID: WC_MA7G_061024B	SeqNo: 1070706									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Sulfide	ND	100									

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



# Clayton Group Services

Date: 26-Oct-06

CLIENT: DOUBLE EAGLE STEEL COATING CO

Work Order: 06100984

Project:

## QC SUMMARY REPORT

Laboratory Control Spike

Sample ID	LCS-26571	Batch ID: 26571	Units: mg/L		Analysis Date 10/25/2006				Prep Date: 10/25/2006		
Client ID:			Run ID:	ME_VA2B_061025B		SeqNo:	1070595				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	4.92	0.1	5	0	98.4	85.3	112	0			
Barium	4.98	0.1	5	0	99.6	86	112	0			
Cadmium	4.94	0.05	5	0	98.8	86.5	112	0			
Chromium	4.92	0.1	5	0	98.4	85.6	112	0			
Lead	4.88	0.1	5	0	97.6	86.4	111	0			
Selenium	5.07	0.2	5	0	101	83.8	113	0			
Silver	5.01	0.02	5	0	100	83.5	113	0			

Sample ID	LCS-26570	Batch ID: 26570	Units: mg/L	Analysis Date	10/25/2006	Prep Date: 10/25/2006					
Client ID:		Run ID: ME_VA2B_061025A		SeqNo:	1070567						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00201	0.001	0.002	0	100	77.7	123	0			

Sample ID	LCS 89846	Batch ID: R89846	Units: mg/Kg			Analysis Date 10/25/2006				Prep Date:		
Client ID:			Run ID: WC_PE10J_061025B			SeqNo:		1070735				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Reactive Cyanide	12.6	0.1	100	0	12.6	1.41	13.3	0				

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: DOUBLE EAGLE STEEL COATING CO

Work Order: 06100984

Project:

## QC SUMMARY REPORT

Laboratory Control Spike

Sample ID	Ics 89845	Batch ID:	R89845	Units:	mg/Kg	Analysis Date	10/24/2006	Prep Date:			
Client ID:		Run ID:	WC_MA7G_061024B	SeqNo:	1070718						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Sulfide	69.18	100	134.3	0	51.5	4.19	106	0			J

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

## Clayton Group Services

Date: 26-Oct-06

CLIENT: DOUBLE EAGLE STEEL COATING CO

Work Order: 06100984

Project:

## QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	06100984-001B MS	Batch ID:	26571	Units:	mg/L	Analysis Date	10/25/2006	Prep Date:	10/25/2006		
Client ID:	DOOR 10 FILTER CAKE (	Run ID:	ME_VA2B_061025B	SeqNo:	1070597						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	4.83	0.1	5	0	96.6	75.8	123	0			
Barium	4.81	0.1	5	0.183	92.5	68.4	122	0			
Cadmium	4.63	0.05	5	0	92.6	71.7	118	0			
Chromium	5.7	0.1	5	1.18	90.4	74.6	117	0			
Lead	4.63	0.1	5	0.144	89.7	71	118	0			
Selenium	4.82	0.2	5	0	96.4	73.5	125	0			
Silver	4.6	0.02	5	0	92	40.6	144	0			

Sample ID	06100984-001B MSD	Batch ID: 26571	Units: mg/L			Analysis Date 10/25/2006			Prep Date: 10/25/2006		
Client ID:	DOOR 10 FILTER CAKE (		Run ID: ME_VA2B_061025B		SeqNo: 1070598						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	4.87	0.1	5	0	97.4	75.8	123	4.83	0.825	11.3	
Barium	4.83	0.1	5	0.183	92.9	68.4	122	4.81	0.415	7.55	
Cadmium	4.63	0.05	5	0	92.6	71.7	118	4.63	0	7.28	
Chromium	5.74	0.1	5	1.18	91.2	74.6	117	5.7	0.699	7.12	
Lead	4.63	0.1	5	0.144	89.7	71	118	4.63	0	7.21	
Selenium	4.91	0.2	5	0	98.2	73.5	125	4.82	1.85	21.4	
Silver	4.75	0.02	5	0	95	40.6	144	4.6	3.21	49.7	

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: DOUBLE EAGLE STEEL COATING CO

Work Order: 06100984

Project:

## QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	06100984-001B MS	Batch ID:	26570	Units:	mg/L	Analysis Date	10/25/2006	Prep Date:	10/25/2006		
Client ID:	DOOR 10 FILTER CAKE (	Run ID:	ME_VA2B_061025A	SeqNo:	1070569						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00292	0.001	0.002	0.00061	116	62.1	141	0			

Sample ID	06100984-001B MSD	Batch ID:	26570	Units:	mg/L	Analysis Date	10/25/2006	Prep Date:	10/25/2006		
Client ID:	DOOR 10 FILTER CAKE (	Run ID:	ME_VA2B_061025A	SeqNo:	1070570						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00288	0.001	0.002	0.00061	114	62.1	141	0.00292	1.38	34	

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



November 09, 2006

Bob Zarb  
DOUBLE EAGLE STEEL COATING COMPANY  
3000 Miller Road  
Dearborn, MI 48120-

Clayton Work Order No. 06110090

Reference:

Dear Bob Zarb:

Clayton Group Services received 1 sample on 11/2/2006 for the analyses presented in the following report.

This is an additional report. Please see the Case Narrative for details.

This material is confidential and is intended solely for the person to whom it is addressed. If this is received in error, please contact the number provided below.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact a Client Services Representative at (800) 806-5887.

Sincerely,

Karen Coonan  
Client Services Representative  
cc: Bob Zarb

## CASE NARRATIVE

Date: 09-Nov-06

Client: DOUBLE EAGLE STEEL COATING COMPANY

Project:

Work Order No 06110090

Additional Work:

As requested, the sample Door 10 Filter Cake (Alloy) was analyzed for TCLP VOC and TCLP SVOC.

The results of this report relate only to the samples listed in the body of this report and the results meet all the requirements of the NELAC standards. All quality control results associated with this sample set were within acceptable limits and/or do not adversely affect the reported results, unless otherwise noted below.



# ANALYTICAL RESULTS

Date: 09-Nov-06

Client: DOUBLE EAGLE STEEL COATING COMPANY

Work Order No: 06110090

Project:

Lab ID: 06110090-001B

Client Sample ID: DOOR 10 FILTER CAKE  
(ALLOY)

Matrix: SOLID

Tag Number:

Collection Date: 10/19/2006 9:15:00 AM

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
GC/MS TCLP VOLATILES; METHOD EPA 1311/8260B							
Benzene	ND	0.20		mg/L	200	11/7/2006 2:08:00 PM	DRS
2-Butanone	ND	4.0		mg/L	200	11/7/2006 2:08:00 PM	DRS
Carbon tetrachloride	ND	0.20		mg/L	200	11/7/2006 2:08:00 PM	DRS
Chlorobenzene	ND	0.20		mg/L	200	11/7/2006 2:08:00 PM	DRS
Chloroform	ND	0.20		mg/L	200	11/7/2006 2:08:00 PM	DRS
1,2-Dichloroethane	ND	0.20		mg/L	200	11/7/2006 2:08:00 PM	DRS
1,1-Dichloroethene	ND	0.20		mg/L	200	11/7/2006 2:08:00 PM	DRS
Tetrachloroethene	ND	0.20		mg/L	200	11/7/2006 2:08:00 PM	DRS
Trichloroethene	ND	0.20		mg/L	200	11/7/2006 2:08:00 PM	DRS
Vinyl chloride	ND	0.20		mg/L	200	11/7/2006 2:08:00 PM	DRS
GCMS TCLP SEMIVOLATILES; METHOD EPA 1311/8270C							
1,4-Dichlorobenzene	ND	0.050		mg/L	1	11/7/2006 3:29:00 PM	PKT
2,4-Dinitrotoluene	ND	0.050		mg/L	1	11/7/2006 3:29:00 PM	PKT
Hexachlorobenzene	ND	0.050		mg/L	1	11/7/2006 3:29:00 PM	PKT
Hexachlorobutadiene	ND	0.050		mg/L	1	11/7/2006 3:29:00 PM	PKT
Hexachloroethane	ND	0.050		mg/L	1	11/7/2006 3:29:00 PM	PKT
Nitrobenzene	ND	0.050		mg/L	1	11/7/2006 3:29:00 PM	PKT
Pentachlorophenol	ND	0.20		mg/L	1	11/7/2006 3:29:00 PM	PKT
Pyridine	ND	0.050		mg/L	1	11/7/2006 3:29:00 PM	PKT
2,4,5-Trichlorophenol	ND	0.50		mg/L	1	11/7/2006 3:29:00 PM	PKT
2,4,6-Trichlorophenol	ND	0.050		mg/L	1	11/7/2006 3:29:00 PM	PKT
Cresols, Total	ND	0.50		mg/L	1	11/7/2006 3:29:00 PM	PKT

Qualifiers: ND - Not Detected at the Reporting Limit (RL)  
J - Analyte detected below the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
T - Tentatively Identified Compound (TIC)

## CASE NARRATIVE

Date: 12-Oct-06

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Client: DOUBLE EAGLE STEEL COATING COMPANY

Project:

Work Order No 06091231

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The results of this report relate only to the samples listed in the body of this report and the results meet all the requirements of the NELAC standards. All quality control results associated with this sample set were within acceptable limits and/or do not adversely affect the reported results, unless otherwise noted below.

Samples were received at the laboratory at an average temperature of 19 °C. Samples were delivered to the laboratory shortly after collection.

Analytical Comments for Method 8270L, sample -002B: Lower reporting limits could not be achieved due to matrix interference.

Analytical Comments for Method 8270L, sample -001B: Please note that the matrix spike duplicate (MSD) recoveries of some analytes were above statistical limits. The results reported are not affected.

The Total (Organic) Halogen analysis was subcontracted to e-Lab Analytical, Inc., in Holland, MI. Due to the nature of the analysis, each layer was analyzed separately. The top thin layer was analyzed as an oil, the bottom layer was analyzed as a liquid. E-Lab's report is attached.

# ANALYTICAL RESULTS

Date: 12-Oct-06

Client: DOUBLE EAGLE STEEL COATING COMPANY

Work Order No: 06091231

Project:

Lab ID: 06091231-001B

Client Sample ID: TANK 12

Matrix: LEACHATE

Tag Number:

Collection Date: 9/29/2006 10:30:00 AM

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
<b>ICP METALS; LEACHATE: METHOD EPA 1311/6010B</b>							
Arsenic	ND	0.10		mg/L	1	10/9/2006	DH
Barium	0.13	0.10		mg/L	1	10/9/2006	DH
Cadmium	ND	0.050		mg/L	1	10/9/2006	DH
Chromium	ND	0.10		mg/L	1	10/9/2006	DH
Lead	ND	0.10		mg/L	1	10/9/2006	DH
Selenium	ND	0.20		mg/L	1	10/9/2006	DH
Silver	ND	0.020		mg/L	1	10/9/2006	DH
<b>TCLP MERCURY; METHOD EPA 1311/7470A</b>							
Mercury	ND	0.0010		mg/L	1	10/10/2006	ETG
<b>GC/MS TCLP VOLATILES; METHOD EPA 1311/8260B</b>							
Benzene	ND	0.20		mg/L	200	10/10/2006 11:47:00 AM	DRS
2-Butanone	ND	4.0		mg/L	200	10/10/2006 11:47:00 AM	DRS
Carbon tetrachloride	ND	0.20		mg/L	200	10/10/2006 11:47:00 AM	DRS
Chlorobenzene	ND	0.20		mg/L	200	10/10/2006 11:47:00 AM	DRS
Chloroform	ND	0.20		mg/L	200	10/10/2006 11:47:00 AM	DRS
1,2-Dichloroethane	ND	0.20		mg/L	200	10/10/2006 11:47:00 AM	DRS
1,1-Dichloroethene	ND	0.20		mg/L	200	10/10/2006 11:47:00 AM	DRS
Tetrachloroethene	ND	0.20		mg/L	200	10/10/2006 11:47:00 AM	DRS
Trichloroethene	ND	0.20		mg/L	200	10/10/2006 11:47:00 AM	DRS
Vinyl chloride	ND	0.20		mg/L	200	10/10/2006 11:47:00 AM	DRS

## Qualifiers:

ND - Not Detected at the Reporting Limit (RL).

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below the Reporting Limit

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

\* - Value exceeds Maximum Contaminant Level

T - Tentatively Identified Compound (TIC)

# ANALYTICAL RESULTS

Date: 12-Oct-06

Client: DOUBLE EAGLE STEEL COATING COMPANY

Work Order No: 06091231

Project:

Lab ID: 06091231-001B

Client Sample ID: TANK 12

Matrix: LEACHATE

Tag Number:

Collection Date: 9/29/2006 10:30:00 AM

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
GCMS TCLP SEMIVOLATILES; METHOD EPA 1311/8270C							
1,4-Dichlorobenzene	ND	0.050		mg/L	1	10/10/2006 10:36:00 AM	PKT
2,4-Dinitrotoluene	ND	0.050		mg/L	1	10/10/2006 10:36:00 AM	PKT
Hexachlorobenzene	ND	0.050		mg/L	1	10/10/2006 10:36:00 AM	PKT
Hexachlorobutadiene	ND	0.050		mg/L	1	10/10/2006 10:36:00 AM	PKT
Hexachloroethane	ND	0.050		mg/L	1	10/10/2006 10:36:00 AM	PKT
Nitrobenzene	ND	0.050		mg/L	1	10/10/2006 10:36:00 AM	PKT
Pentachlorophenol	ND	0.20		mg/L	1	10/10/2006 10:36:00 AM	PKT
Pyridine	ND	0.050		mg/L	1	10/10/2006 10:36:00 AM	PKT
2,4,5-Trichlorophenol	ND	0.50		mg/L	1	10/10/2006 10:36:00 AM	PKT
2,4,6-Trichlorophenol	ND	0.050		mg/L	1	10/10/2006 10:36:00 AM	PKT
Cresols, Total	ND	0.50		mg/L	1	10/10/2006 10:36:00 AM	PKT

**Qualifiers:**

ND - Not Detected at the Reporting Limit (RL).

J - Analyte detected below the Reporting Limit

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

T - Tentatively Identified Compound (TIC)

# ANALYTICAL RESULTS

Date: 12-Oct-06

Client: DOUBLE EAGLE STEEL COATING COMPANY

Work Order No: 06091231

Project:

Lab ID: 06091231-001C

Client Sample ID: TANK 12

Matrix: AQUEOUS

Tag Number:

Collection Date: 9/29/2006 10:30:00 AM

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
IGNITABILITY; METHOD EPA 1010							
Ignitability	>200	0		°F	1	10/9/2006	CLH
PH; METHOD EPA 150.1							
pH	>12.45	1.0		pH Units	1	9/29/2006 3:51:00 PM	CLH
REACTIVE CYANIDE, EPA SW 846 CHAPTER 7.3.3.2							
Reactive Cyanide	ND	0.10		mg/L	1	10/6/2006	CLH
REACTIVE SULFIDE; EPA SW 846 CHAPTER 7.3.4.2							
Reactive Sulfide	ND	100		mg/L	1	10/5/2006	CLH

Qualifiers: ND - Not Detected at the Reporting Limit (RL).  
J - Analyte detected below the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
T - Tentatively Identified Compound (TIC)

# ANALYTICAL RESULTS

Date: 12-Oct-06

Client: DOUBLE EAGLE STEEL COATING COMPANY

Work Order No: 06091231

Project:

Lab ID: 06091231-002B

Client Sample ID: TANKS 43/44

Matrix: LEACHATE

Tag Number:

Collection Date: 9/29/2006 11:00:00 AM

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
ICP METALS; LEACHATE: METHOD EPA 1311/6010B							
Arsenic	ND	0.10		mg/L	1	10/9/2006	DH
Barium	ND	0.10		mg/L	1	10/9/2006	DH
Cadmium	ND	0.050		mg/L	1	10/9/2006	DH
Chromium	ND	0.10		mg/L	1	10/9/2006	DH
Lead	0.49	0.10		mg/L	1	10/9/2006	DH
Selenium	ND	0.20		mg/L	1	10/9/2006	DH
Silver	ND	0.020		mg/L	1	10/9/2006	DH
TCLP MERCURY; METHOD EPA 1311/7470A							
Mercury	ND	0.0010		mg/L	1	10/10/2006	ETG
GC/MS TCLP VOLATILES; METHOD EPA 1311/8260B							
Benzene	ND	0.20		mg/L	200	10/10/2006 12:18:00 PM	DRS
2-Butanone	ND	4.0		mg/L	200	10/10/2006 12:18:00 PM	DRS
Carbon tetrachloride	ND	0.20		mg/L	200	10/10/2006 12:18:00 PM	DRS
Chlorobenzene	ND	0.20		mg/L	200	10/10/2006 12:18:00 PM	DRS
Chloroform	ND	0.20		mg/L	200	10/10/2006 12:18:00 PM	DRS
1,2-Dichloroethane	ND	0.20		mg/L	200	10/10/2006 12:18:00 PM	DRS
1,1-Dichloroethene	ND	0.20		mg/L	200	10/10/2006 12:18:00 PM	DRS
Tetrachloroethene	ND	0.20		mg/L	200	10/10/2006 12:18:00 PM	DRS
Trichloroethene	ND	0.20		mg/L	200	10/10/2006 12:18:00 PM	DRS
Vinyl chloride	ND	0.20		mg/L	200	10/10/2006 12:18:00 PM	DRS

Qualifiers: ND - Not Detected at the Reporting Limit (RL).  
J - Analyte detected below the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
T - Tentatively Identified Compound (TIC)

# ANALYTICAL RESULTS

Date: 12-Oct-06

Client: DOUBLE EAGLE STEEL COATING COMPANY

Work Order No: 06091231

Project:

Lab ID: 06091231-002B

Client Sample ID: TANKS 43/44

Matrix: LEACHATE

Tag Number:

Collection Date: 9/29/2006 11:00:00 AM

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
GCMS TCLP SEMIVOLATILES; METHOD EPA 1311/8270C							
1,4-Dichlorobenzene	ND	0.075		mg/L	1.5	10/10/2006 11:14:00 AM	PKT
2,4-Dinitrotoluene	ND	0.075		mg/L	1.5	10/10/2006 11:14:00 AM	PKT
Hexachlorobenzene	ND	0.075		mg/L	1.5	10/10/2006 11:14:00 AM	PKT
Hexachlorobutadiene	ND	0.075		mg/L	1.5	10/10/2006 11:14:00 AM	PKT
Hexachloroethane	ND	0.075		mg/L	1.5	10/10/2006 11:14:00 AM	PKT
Nitrobenzene	ND	0.075		mg/L	1.5	10/10/2006 11:14:00 AM	PKT
Pentachlorophenol	ND	0.30		mg/L	1.5	10/10/2006 11:14:00 AM	PKT
Pyridine	ND	0.075		mg/L	1.5	10/10/2006 11:14:00 AM	PKT
2,4,5-Trichlorophenol	ND	0.75		mg/L	1.5	10/10/2006 11:14:00 AM	PKT
2,4,6-Trichlorophenol	ND	0.075		mg/L	1.5	10/10/2006 11:14:00 AM	PKT
Cresols, Total	ND	0.75		mg/L	1.5	10/10/2006 11:14:00 AM	PKT

Qualifiers: ND - Not Detected at the Reporting Limit (RL).  
J - Analyte detected below the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
T - Tentatively Identified Compound (TIC)



# ANALYTICAL RESULTS

Date: 12-Oct-06

Client: DOUBLE EAGLE STEEL COATING COMPANY

Work Order No: 06091231

Project:

Lab ID: 06091231-002C

Client Sample ID: TANKS 43/44

Matrix: AQUEOUS

Tag Number:

Collection Date: 9/29/2006 11:00:00 AM

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
<b>IGNITABILITY; METHOD EPA 1010</b>							
Ignitability	>200	0		°F	1	10/9/2006	CLH
<b>PH; METHOD EPA 150.1</b>							
pH	11.1	1.00		pH Units	1	9/29/2006 3:55:00 PM	CLH
<b>REACTIVE CYANIDE, EPA SW 846 CHAPTER 7.3.3.2</b>							
Reactive Cyanide	ND	0.10		mg/L	1	10/6/2006	CLH
<b>REACTIVE SULFIDE; EPA SW 846 CHAPTER 7.3.4.2</b>							
Reactive Sulfide	ND	100		mg/L	1	10/5/2006	CLH

**Qualifiers:**  
ND - Not Detected at the Reporting Limit (RL).  
J - Analyte detected below the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
T - Tentatively Identified Compound (TIC)

# ANALYTICAL RESULTS

Date: 12-Oct-06

Client: DOUBLE EAGLE STEEL COATING COMPANY

Work Order No: 06091231

Project:

Lab ID: 06091231-003B

Client Sample ID: DOOR 10 FILTER CAKE  
(ZINC)

Matrix: LEACHATE

Tag Number:

Collection Date: 9/29/2006 11:30:00 AM

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
ICP METALS; LEACHATE: METHOD EPA 1311/6010B							
Arsenic	ND	0.10		mg/L	1	10/9/2006	DH
Barium	0.29	0.10		mg/L	1	10/9/2006	DH
Cadmium	ND	0.050		mg/L	1	10/9/2006	DH
Chromium	ND	0.10		mg/L	1	10/9/2006	DH
Lead	ND	0.10		mg/L	1	10/9/2006	DH
Selenium	ND	0.20		mg/L	1	10/9/2006	DH
Silver	ND	0.020		mg/L	1	10/9/2006	DH
TCLP MERCURY; METHOD EPA 1311/7470A							
Mercury	ND	0.0010		mg/L	1	10/10/2006	ETG
GC/MS TCLP VOLATILES; METHOD EPA 1311/8260B							
Benzene	ND	0.20		mg/L	200	10/10/2006 12:50:00 PM	DRS
2-Butanone	ND	4.0		mg/L	200	10/10/2006 12:50:00 PM	DRS
Carbon tetrachloride	ND	0.20		mg/L	200	10/10/2006 12:50:00 PM	DRS
Chlorobenzene	ND	0.20		mg/L	200	10/10/2006 12:50:00 PM	DRS
Chloroform	ND	0.20		mg/L	200	10/10/2006 12:50:00 PM	DRS
1,2-Dichloroethane	ND	0.20		mg/L	200	10/10/2006 12:50:00 PM	DRS
1,1-Dichloroethene	ND	0.20		mg/L	200	10/10/2006 12:50:00 PM	DRS
Tetrachloroethene	ND	0.20		mg/L	200	10/10/2006 12:50:00 PM	DRS
Trichloroethene	ND	0.20		mg/L	200	10/10/2006 12:50:00 PM	DRS
Vinyl chloride	ND	0.20		mg/L	200	10/10/2006 12:50:00 PM	DRS

Qualifiers: ND - Not Detected at the Reporting Limit (RL).  
J - Analyte detected below the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
T - Tentatively Identified Compound (TIC)

# ANALYTICAL RESULTS

Date: 12-Oct-06

Client: DOUBLE EAGLE STEEL COATING COMPANY

Work Order No: 06091231

Project:

Lab ID: 06091231-003B

Client Sample ID: DOOR 10 FILTER CAKE  
(ZINC)

Matrix: LEACHATE

Tag Number:

Collection Date: 9/29/2006 11:30:00 AM

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
GCMS TCLP SEMIVOLATILES; METHOD EPA 1311/8270C							
1,4-Dichlorobenzene	ND	0.050		mg/L	1	10/10/2006 11:51:00 AM	PKT
2,4-Dinitrotoluene	ND	0.050		mg/L	1	10/10/2006 11:51:00 AM	PKT
Hexachlorobenzene	ND	0.050		mg/L	1	10/10/2006 11:51:00 AM	PKT
Hexachlorobutadiene	ND	0.050		mg/L	1	10/10/2006 11:51:00 AM	PKT
Hexachloroethane	ND	0.050		mg/L	1	10/10/2006 11:51:00 AM	PKT
Nitrobenzene	ND	0.050		mg/L	1	10/10/2006 11:51:00 AM	PKT
Pentachlorophenol	ND	0.20		mg/L	1	10/10/2006 11:51:00 AM	PKT
Pyridine	ND	0.050		mg/L	1	10/10/2006 11:51:00 AM	PKT
2,4,5-Trichlorophenol	ND	0.50		mg/L	1	10/10/2006 11:51:00 AM	PKT
2,4,6-Trichlorophenol	ND	0.050		mg/L	1	10/10/2006 11:51:00 AM	PKT
Cresols, Total	ND	0.50		mg/L	1	10/10/2006 11:51:00 AM	PKT

Qualifiers: ND - Not Detected at the Reporting Limit (RL).  
J - Analyte detected below the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
T - Tentatively Identified Compound (TIC)

# ANALYTICAL RESULTS

Date: 12-Oct-06

Client: DOUBLE EAGLE STEEL COATING COMPANY

Work Order No: 06091231

Project:

Lab ID: 06091231-003C

Client Sample ID: DOOR 10 FILTER CAKE  
(ZINC)

Matrix: SOLID

Tag Number:

Collection Date: 9/29/2006 11:30:00 AM

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
SW-846 METHOD 1030							
Ignitability	Negative	0		Positive/N	1	10/6/2006	KAR
PH, SOIL OR WASTE; METHOD EPA 9045C							
pH	5.1	1.0		pH Units	1	9/29/2006 4:16:00 PM	CLH
REACTIVE CYANIDE, EPA SW 846 CHAPTER 7.3.3.2							
Reactive Cyanide	ND	0.10		mg/Kg	1	10/6/2006	CLH
REACTIVE SULFIDE; EPA SW 846 CHAPTER 7.3.4.2							
Reactive Sulfide	ND	100		mg/Kg	1	10/5/2006	CLH

Qualifiers: ND - Not Detected at the Reporting Limit (RL).  
J - Analyte detected below the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range  
T - Tentatively Identified Compound (TIC)



10/05 20K

Will need + 2 TCLP Bottles  
→ RCT  
for Alloy Filter cake

e-Lab Analytical, Inc

Date: October 10, 2006

CLIENT: Clayton Group Serives, Inc  
Project: 6091231  
Work Order: 0610070

## Work Order Sample Summary

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
0610070-01	Tanks 43/44-Bottom Layer	Liquid		9/29/2006 11:00	10/3/2006 16:35	<input type="checkbox"/>
0610070-01	Tanks 43/44-Top Layer	Oil		9/29/2006 11:00	10/3/2006 16:35	<input type="checkbox"/>

**e-Lab Analytical, Inc**

Date: October 10, 2006

CLIENT: Clayton Group Services, Inc

Client Sample ID: Tanks 43/44-Top Layer

Work Order: 0610070

Collection Date: 9/29/2006 11:00:00 AM

Project: 6091231

Lab ID: 0610070-01

Matrix: OIL

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
<b>TOTAL HALOGENS IN OIL</b>						
Total Halogens in Oil	ND	0.025		wt%	1	Analyst: DD 10/5/2006

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- \* - Value exceeds Maximum Contaminant Level

- S - Spike Recovery outside accepted recovery limits
- P - Dual Column results percent difference > 40%
- E - Value above quantitation range
- H - Analyzed outside of Hold Time



**e-Lab Analytical, Inc**

Date: October 10, 2006

CLIENT: Clayton Group Services, Inc

Client Sample ID: Tanks 43/44-Bottom Layer

Work Order: 0610070

Collection Date: 9/29/2006 11:00:00 AM

Project: 6091231

Lab ID: 0610070-01

Matrix: LIQUID

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
TOTAL ORGANIC HALIDES				EPA 9020		
TOX	7,100	20		µg/L	1	10/9/2006

Prep Date: 10/9/2006

Analyst: KD

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- \* - Value exceeds Maximum Contaminant Level

- S - Spike Recovery outside accepted recovery limits
- P - Dual Column results percent difference > 40%
- E - Value above quantitation range
- H - Analyzed outside of Hold Time

AR Page 2 of 2

**CASE NARRATIVE**

Date: 11-May-05

CLIENT: DOUBLE EAGLE STEEL COATING COMPANY

Project: Filter Cake

Work Order No 05050236

Unless otherwise noted below, all quality control results associated with this sample set were within acceptable limits and/or do not adversely affect the reported results.

Analytical Comments for Method 8270L, sample LCS-18910: Please note that the laboratory control spike (LCS ) recovery of one or more analytes was above statistical limits. The matrix spike/duplicate (MS/MSD) passed the LCS criteria. The results are not affected.

See  
Page 3 of 3  
from 3rd - 2005  
May  
Duplic  
Chromium  
0.54 mg/L

# ANALYTICAL RESULTS

Date: 11-May-05

CLIENT: DOUBLE EAGLE STEEL COATING COMPANY  
 Work Order No: 05050236  
 Project: Filter Cake  
 Lab ID: 05050236-001B

Client Sample ID: FILTER CAKE  
 Tag Number:  
 Collection Date: 5/6/2005 12:00:00 PM  
 Matrix: LEACHATE

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
<b>GC/MS TCLP VOLATILES; METHOD EPA 1311/8260B</b>							
Benzene	ND	0.20		mg/L	200	5/10/2005 8:31:00 PM	DRS
2-Butanone	ND	4.0		mg/L	200	5/10/2005 8:31:00 PM	DRS
Carbon tetrachloride	ND	0.20		mg/L	200	5/10/2005 8:31:00 PM	DRS
Chlorobenzene	ND	0.20		mg/L	200	5/10/2005 8:31:00 PM	DRS
Chloroform	ND	0.20		mg/L	200	5/10/2005 8:31:00 PM	DRS
1,2-Dichloroethane	ND	0.20		mg/L	200	5/10/2005 8:31:00 PM	DRS
1,1-Dichloroethene	ND	0.20		mg/L	200	5/10/2005 8:31:00 PM	DRS
Tetrachloroethene	ND	0.20		mg/L	200	5/10/2005 8:31:00 PM	DRS
Trichloroethene	ND	0.20		mg/L	200	5/10/2005 8:31:00 PM	DRS
Vinyl chloride	ND	0.20		mg/L	200	5/10/2005 8:31:00 PM	DRS
<b>GCMS TCLP SEMIVOLATILES; METHOD EPA 1311/8270C</b>							
1,4-Dichlorobenzene	ND	0.025		mg/L	0.5	5/10/2005 9:06:00 PM	LL
2,4-Dinitrotoluene	ND	0.025		mg/L	0.5	5/10/2005 9:06:00 PM	LL
Hexachlorobenzene	ND	0.025		mg/L	0.5	5/10/2005 9:06:00 PM	LL
Hexachlorobutadiene	ND	0.025		mg/L	0.5	5/10/2005 9:06:00 PM	LL
Hexachloroethane	ND	0.025		mg/L	0.5	5/10/2005 9:06:00 PM	LL
Nitrobenzene	ND	0.10		mg/L	0.5	5/10/2005 9:06:00 PM	LL
Pentachlorophenol	ND	0.025		mg/L	0.5	5/10/2005 9:06:00 PM	LL
Pyridine	ND	0.25		mg/L	0.5	5/10/2005 9:06:00 PM	LL
2,4,5-Trichlorophenol	ND	0.025		mg/L	0.5	5/10/2005 9:06:00 PM	LL
2,4,6-Trichlorophenol	ND	0.25		mg/L	0.5	5/10/2005 9:06:00 PM	LL
Cresols, Total	ND	0.25		mg/L	0.5	5/10/2005 9:06:00 PM	LL

Qualifiers: ND - Not Detected at the Reporting Limit (RL).  
 J - Analyte detected below the Reporting Limit  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range  
 T - Tentatively Identified Compound (TIC)

Date: 11-May-05

## Clayton Group Services

CLIENT: DOUBLE EAGLE STEEL COATING CO  
 Work Order: 05050236  
 Project: Filter Cake

# QC SUMMARY REPORT

Method Blank

Sample ID: 05050000-BLK6		Batch ID: R66313		Units: mg/L		Analysis Date: 5/10/2005 5:56:00 PM				Prep Date:	
Client ID:		Run ID: MS_HP10J_050506B		SeqNo: 774702							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.02									
2-Butanone	ND	0.4									
Carbon tetrachloride	ND	0.02									
Chlorobenzene	ND	0.02									
Chloroform	ND	0.02									
1,2-Dichloroethane	ND	0.02									
1,1-Dichloroethene	ND	0.02									
Tetrachloroethene	ND	0.02									
Trichloroethene	ND	0.02									
Vinyl chloride	ND	0.02									
Surr: 4-Bromofluorobenzene	0.9912	0	1	0	99.1	82.7	115	0			
Surr: 1,2-Dichloroethane-d4	0.9998	0	1	0	100	74.4	120	0			
Surr: Toluene-d8	0.9814	0	1	0	98.1	81.8	118	0			
Surr: Pentafluorobenzene	1.04	0	1	0	104	81.9	122	0			

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



CLIENT: DOUBLE EAGLE STEEL COATING CO  
 Work Order: 05050236  
 Project: Filter Cake

## QC SUMMARY REPORT

Method Blank

Sample ID: MB-18910	Batch ID: 18910	Units: mg/L			Analysis Date: 5/10/2005 11:04:00 PM				Prep Date: 5/10/2005		
Client ID:		Run ID:	MS_HP5E_050510B		SeqNo:		774616				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.025									
2,4-Dinitrotoluene	ND	0.025									
Hexachlorobenzene	ND	0.025									
Hexachlorobutadiene	ND	0.025									
Hexachloroethane	ND	0.025									
Nitrobenzene	ND	0.025									
Pentachlorophenol	ND	0.1									
Pyridine	ND	0.025									
2,4,5-Trichlorophenol	ND	0.25									
2,4,6-Trichlorophenol	ND	0.025									
Cresols, Total	ND	0.25									
Surr: 2,4,6-Tribromophenol	0.8274	0	0.75	0	110	22.2	123	0			
Surr: 2-Fluorobiphenyl	0.4705	0	0.5	0	94.1	21.9	111	0			
Surr: 2-Fluorophenol	0.6192	0	0.75	0	82.6	7.54	91.2	0			
Surr: Nitrobenzene-d5	0.4479	0	0.5	0	89.6	24.1	102	0			
Surr: Phenol-d5	0.65	0	0.75	0	86.7	1.91	101	0			
Surr: Terphenyl-d14	0.6551	0	0.5	0	131	33.5	126	0			S

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: DOUBLE EAGLE STEEL COATING CO  
 Work Order: 05050236  
 Project: Filter Cake

## QC SUMMARY REPORT

Method Blank

Sample ID: MB-18910 FL1	Batch ID: 18910	Units: mg/L			Analysis Date: 5/10/2005 5:09:00 PM				Prep Date: 5/10/2005		
Client ID:		Run ID:	MS_HP5E_050510B		SeqNo:		774607				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.025									
2,4-Dinitrotoluene	ND	0.025									
Hexachlorobenzene	ND	0.025									
Hexachlorobutadiene	ND	0.025									
Hexachloroethane	ND	0.025									
Nitrobenzene	ND	0.025									
Pentachlorophenol	ND	0.1									
Pyridine	ND	0.025									
2,4,5-Trichlorophenol	ND	0.25									
2,4,6-Trichlorophenol	ND	0.025									
Cresols, Total	ND	0.25									
Surr: 2,4,6-Tribromophenol	0.725	0	0.75	0	96.7	22.2	123	0			
Surr: 2-Fluorobiphenyl	0.408	0	0.5	0	81.6	21.9	111	0			
Surr: 2-Fluorophenol	0.5405	0	0.75	0	72.1	7.54	91.2	0			
Surr: Nitrobenzene-d5	0.4008	0	0.5	0	80.2	24.1	102	0			
Surr: Phenol-d5	0.5353	0	0.75	0	71.4	1.91	101	0			
Surr: Terphenyl-d14	0.5256	0	0.5	0	105	33.5	126	0			

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Clayton Group Services

Date: 11-May-05

CLIENT: DOUBLE EAGLE STEEL COATING CO

Work Order: 05050236

Project: Filter Cake

## QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: LCS-18910		Batch ID: 18910		Units: mg/L		Analysis Date: 5/10/2005 5:49:00 PM				Prep Date: 5/10/2005	
Client ID:		Run ID: MS_HP5E_050510B		SeqNo: 774608							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	0.3343	0.025	0.5	0	66.9	20.2	68.6	0			
2,4-Dinitrotoluene	0.5467	0.025	0.5	0	109	48.9	115	0			
Hexachlorobenzene	0.4943	0.025	0.5	0	98.9	42.9	124	0			
Hexachlorobutadiene	0.4283	0.025	0.5	0	85.7	11.2	82.6	0			S
Hexachloroethane	0.3874	0.025	0.5	0	77.5	12.1	71	0			S
Nitrobenzene	0.4534	0.025	0.5	0	90.7	28.5	94	0			
Pentachlorophenol	0.4759	0.1	0.5	0	95.2	20.4	122	0			
Pyridine	0.2898	0.025	0.5	0	58	0.5	66.2	0			
2,4,5-Trichlorophenol	0.4814	0.25	0.5	0	96.3	31.8	103	0			
2,4,6-Trichlorophenol	0.4899	0.025	0.5	0	98	32.2	100	0			
Cresols, Total	0.831	0.25	1	0	83.1	32.5	94	0			
Surr: 2,4,6-Tribromophenol	0.911	0	0.75	0	121	22.2	123	0			
Surr: 2-Fluorobiphenyl	0.5042	0	0.5	0	101	21.9	111	0			
Surr: 2-Fluorophenol	0.5504	0	0.75	0	73.4	7.54	91.2	0			
Surr: Nitrobenzene-d5	0.4539	0	0.5	0	90.8	24.1	102	0			
Surr: Phenol-d5	0.5871	0	0.75	0	78.3	1.91	101	0			
Surr: Terphenyl-d14	0.6403	0	0.5	0	128	33.5	126	0			S

Please note that the laboratory control spike (LCS) recovery of one or more analytes was above statistical limits. The matrix spike/duplicate (MS/MSD) passed the LCS criteria. The results are not affected.

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit  
S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
B - Analyte detected in the associated Method Blank





CLIENT: DOUBLE EAGLE STEEL COATING CO  
 Work Order: 05050236  
 Project: Filter Cake

## QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Surr: Pentafluorobenzene	47.77	0	50	0	95.5	81.7	135	52.41	9.26	6.63	R
--------------------------	-------	---	----	---	------	------	-----	-------	------	------	---

Sample ID: 05050236-001BMS		Batch ID: 18910		Units: mg/L		Analysis Date: 5/10/2005 9:45:00 PM			Prep Date: 5/10/2005		
Client ID: FILTER CAKE		Run ID: MS_HP5E_050510B		SeqNo: 774614							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	0.275	0.025	0.5	0	55	0.5	123	0			
2,4-Dinitrotoluene	0.4528	0.025	0.5	0	90.6	12.3	142	0			
Hexachlorobenzene	0.4274	0.025	0.5	0	85.5	0.5	157	0			
Hexachlorobutadiene	0.3262	0.025	0.5	0	65.2	0.5	122	0			
Hexachloroethane	0.3026	0.025	0.5	0	60.5	2.4	109	0			
Nitrobenzene	0.3543	0.025	0.5	0	70.9	15.8	125	0			
Pentachlorophenol	0.4315	0.1	0.5	0	86.3	0.5	156	0			
Pyridine	0.2477	0.025	0.5	0	49.5	0.5	110	0			
2,4,5-Trichlorophenol	0.406	0.25	0.5	0	81.2	5.88	137	0			
2,4,6-Trichlorophenol	0.3786	0.025	0.5	0	75.7	3.3	140	0			
Cresols, Total	0.6342	0.25	1	0	63.4	7.02	134	0			
Surr: 2,4,6-Tribromophenol	0.7529	0	0.75	0	100	22.2	123	0			
Surr: 2-Fluorobiphenyl	0.366	0	0.5	0	73.2	21.9	111	0			
Surr: 2-Fluorophenol	0.4371	0	0.75	0	58.3	7.54	91.2	0			
Surr: Nitrobenzene-d5	0.3448	0	0.5	0	69	24.1	102	0			
Surr: Phenol-d5	0.4696	0	0.75	0	62.6	1.91	101	0			
Surr: Terphenyl-d14	0.5467	0	0.5	0	109	33.5	126	0			

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: DOUBLE EAGLE STEEL COATING CO  
 Work Order: 05050236  
 Project: Filter Cake

## QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Sample ID: 05050236-001BMSD	Batch ID: 18910	Units: mg/L				Analysis Date: 5/10/2005 10:24:00 PM				Prep Date: 5/10/2005	
Client ID: FILTER CAKE	Run ID: MS_HP5E_050510B				SeqNo: 774615						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	0.2262	0.025	0.5	0	45.2	0.5	123	0.275	19.5	58.3	
2,4-Dinitrotoluene	0.4153	0.025	0.5	0	83.1	12.3	142	0.4528	8.63	56.4	
Hexachlorobenzene	0.3955	0.025	0.5	0	79.1	0.5	157	0.4274	7.77	59.7	
Hexachlorobutadiene	0.2518	0.025	0.5	0	50.4	0.5	122	0.3262	25.7	61.6	
Hexachloroethane	0.2473	0.025	0.5	0	49.5	2.4	109	0.3026	20.1	70.2	
Nitrobenzene	0.2854	0.025	0.5	0	57.1	15.8	125	0.3543	21.5	56.9	
Pentachlorophenol	0.426	0.1	0.5	0	85.2	0.5	156	0.4315	1.28	71	
Pyridine	0.2222	0.025	0.5	0	44.4	0.5	110	0.2477	10.8	98.6	
2,4,5-Trichlorophenol	0.3051	0.25	0.5	0	61	5.88	137	0.406	28.4	54.5	
2,4,6-Trichlorophenol	0.2939	0.025	0.5	0	58.8	3.3	140	0.3786	25.2	54	
Cresols, Total	0.5155	0.25	1	0	51.5	7.02	134	0.6342	20.7	25	
Surr: 2,4,6-Tribromophenol	0.6738	0	0.75	0	89.8	22.2	123	0.7529	11.1	24.9	
Surr: 2-Fluorobiphenyl	0.285	0	0.5	0	57	21.9	111	0.366	24.9	46.2	
Surr: 2-Fluorophenol	0.3526	0	0.75	0	47	7.54	91.2	0.4371	21.4	50	
Surr: Nitrobenzene-d5	0.2827	0	0.5	0	56.5	24.1	102	0.3448	19.8	64.2	
Surr: Phenol-d5	0.3843	0	0.75	0	51.2	1.91	101	0.4696	20	32	
Surr: Terphenyl-d14	0.5321	0	0.5	0	106	33.5	126	0.5467	2.72	22.8	

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: DOUBLE EAGLE STEEL COATING CO  
Work Order: 05050236  
Project: Filter Cake  
Analysis: Volatile Organics; Leached: Method 8260B

## QC SUMMARY REPORT SURROGATE RECOVERIES

Sample ID	BR4FBZ	BZMED8	DCA12D4				
05050000-BLK6	99.1	98.1	100				
05050236-001B	92.8	96.0	101				

Acronym	Surrogate	QC Limits
	= Pentafluorobenzene	81.7-135
BR4FBZ	= 4-Bromofluorobenzene	87.2-110
BZMED8	= Toluene-d8	90-111
DCA12D4	= 1,2-Dichloroethane-d4	80.5-119

\* Surrogate recovery outside acceptance limits

# Clayton Group Services

**CLIENT:** DOUBLE EAGLE STEEL COATING CO  
**Work Order:** 05050236  
**Project:** Filter Cake  
**Analysis:** Semivolatile Organics; Leached: Method 8270C

## QC SUMMARY REPORT SURROGATE RECOVERIES

Sample ID	NO2BZD5	PH246BR	PH2F	PHEN2F	PHEND14	PHENOLD5		
05050194-002B	126 *	231 *	66.4	70.9	100	129 *		
05050194-003B	55.5	81.3	48.6	56.4	103	48.5		
05050199-006B	50.6	88.0	46.6	53.7	91.1	50.6		
05050199-007B	57.9	122	50.0	62.1	132 *	52.1		
05050236-001B	55.4	65.2	47.5	52.3	97.6	50.1		
05050236-001BMS	69.0	100	58.3	73.2	109	62.6		
05050236-001BMS	56.5	89.8	47.0	57.0	106	51.2		
LCS-18910	90.8	121	73.4	101	128 *	78.3		
MB-18910	89.6	110	82.6	94.1	131 *	86.7		
MB-18910 FL1	80.2	96.7	72.1	81.6	105	71.4		

Acronym	Surrogate	QC Limits
NO2BZD5	= Nitrobenzene-d5	24.1-102
PH246BR	= 2,4,6-Tribromophenol	22.2-123
PH2F	= 2-Fluorophenol	7.54-91.2
PHEN2F	= 2-Fluorobiphenyl	21.9-111
PHEND14	= Terphenyl-d14	33.5-126
PHENOLD5	= Phenol-d5	1.91-101

\* Surrogate recovery outside acceptance limits



For Clayton Use Only  
Clayton Lab Project No.

050502230

## IMPORTANT

Date Results Requested:

Rush Charges Authorized? ☒ Yes ☐ No

☐ Fax or ☒ E-mail Results

E-mail address:

## REPORT RESULTS TO

Name	Double Eagle	Client Job No.
Company	3000 Miller	Dept.
Mailing Address	Dearborn, MI 48120	
City, State, Zip	313 263 1902	FAX No.

Client Job No.

Dept.

**SEND  
INVOICE  
TO**

Purchase Order No.

Name	Dept.
Company	
Address	
City, State, Zip	

ANALYSIS REQUESTED

**ANALYSIS REQUESTED**  
(Enter an 'X' in the box below to indicate request. Enter a 'P' if Preservative added.)

Special instructions and/or specific regulatory requirements:  
(method, limit of detection, etc.)

**Samples are:**  
(check if applicable)

☐ Drinking Water  
☐ Groundwater  
☐ Wastewater

\* Explanation of Preservative

Number of Containers

FOR LAB  
USE ONLY

CLIENT SAMPLE IDENTIFICATION

DATE	SAMPLED
11/1/78	11/1/78
11/2/78	11/2/78
11/3/78	11/3/78
11/4/78	11/4/78
11/5/78	11/5/78
11/6/78	11/6/78
11/7/78	11/7/78
11/8/78	11/8/78
11/9/78	11/9/78
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11/26/78	11/26/78
11/27/78	11/27/78
11/28/78	11/28/78
11/29/78	11/29/78
11/30/78	11/30/78

TIME  
SAMPLED

MATRIX/  
MEDIA  
JUL 11

AIR VOLUME  
(specify units)

(print)

Collector's Signature:

Received by:

Date/Time

Received by:

Date/Time

Received at Lab by:

Date/Time

Sample Condition Upon Receipt:	
--------------------------------	--

☒ Acceptable      ☐ Other (explain)

Authorized by:

Date \_\_\_\_\_

(Client Signature **MUST** Accompany Request)

Please return completed form and samples to one of the Clayton Group Services, Inc. labs listed below:

**Detroit Regional Lab**  
22345 Roethel Drive  
Novi, MI 48375  
(800) 806-5887  
(248) 344-1770  
FAX (248) 344-2655

**Atlanta Regional Lab**  
3380 Chastain Meadows Parkway, Suite 300  
Kennesaw, GA 30144  
(800) 252-9919  
(770) 499-7500  
FAX (770) 423-4990

**Seattle Regional Lab**  
4636 E. Marginal Way S., Suite 215  
Seattle, WA 98134  
(800) 568-7755  
(206) 763-7364  
FAX (206) 763-4189

**DISTRIBUTION:**

White = Clayton Laboratory  
Yellow = Clayton Accounting  
Pink = Client Copy

9/97 20K

22345 Roethel Drive  
Novi, MI 48375  
248.344.1770  
Fax 248.344.2654



May 03, 2005

Christopher McBee  
DOUBLE EAGLE STEEL COATING COMPANY  
3000 Miller Road  
Dearborn, MI 48120-

Clayton Work Order No. 05040748

Reference:

Dear Christopher McBee:

Clayton Group Services received 1 sample on 4/19/2005 for the analyses presented in the following report.

Enclosed is a copy of the Chain-of-Custody record, acknowledging receipt of these samples. Please note that any unused portion of the samples will be discarded 30 days after the date of this report, unless you have requested otherwise.

This material is confidential and is intended solely for the person to whom it is addressed. If this is received in error, please contact the number provided below.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact a Client Services Representative at (800) 806-5887.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Karen Coonan', is written over a horizontal line.

Karen Coonan  
Client Services Representative

cc:

## CASE NARRATIVE

Date: 03-May-05

---

CLIENT: DOUBLE EAGLE STEEL COATING COMPANY

Project:

Work Order No 05040748

---

All quality control results associated with this sample set were within acceptable limits and/or do not adversely affect the reported results, unless otherwise noted below.

The Total Organic Halogens analysis was subcontracted to Lancaster Laboratories, in Lancaster, PA. The actual method used was EPA 9023.



# ANALYTICAL RESULTS



Date: 03-May-05

CLIENT: DOUBLE EAGLE STEEL COATING COMPANY

Client Sample ID: FILTER CAKE DE05001

Work Order No: 05040748

Tag Number:

Project:

Collection Date: 4/18/2005

Lab ID: 05040748-001A

Matrix: SOLID

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
<b>FLASHPOINT; METHOD EPA 1010 (MODIFIED)</b>							
Ignitability	>200	0		°F	1	4/25/2005	CLH
<b>PCBS BY GC; METHOD EPA 8082</b>							
Aroclor 1016	ND	330		µg/Kg	1	4/22/2005	BVP
Aroclor 1221	ND	330		µg/Kg	1	4/22/2005	BVP
Aroclor 1232	ND	330		µg/Kg	1	4/22/2005	BVP
Aroclor 1242	ND	330		µg/Kg	1	4/22/2005	BVP
Aroclor 1248	ND	330		µg/Kg	1	4/22/2005	BVP
Aroclor 1254	ND	330		µg/Kg	1	4/22/2005	BVP
Aroclor 1260	ND	330		µg/Kg	1	4/22/2005	BVP
<b>TOTAL ORGANIC HALOGENS; METHOD EPA 9076</b>							
Total Organic Halides (TOX)	1,900	90		mg/Kg-dry	1	4/28/2005	SUB
<b>PAINT FILTER LIQUIDS TEST; METHOD EPA 9095A</b>							
Free Liquid	Negative	0		Pos/Neg	1	5/2/2005	RAS
<b>PH, SOIL OR WASTE; METHOD EPA 9045C</b>							
pH	2.3	1.0		pH Units	1	4/27/2005 5:45:00 PM	RAS
<b>REACTIVE CYANIDE, EPA SW 846 CHAPTER 7.3.3.2</b>							
Reactive Cyanide	ND	0.10		mg/Kg	1	4/21/2005	HML
<b>REACTIVE SULFIDE; EPA SW 846 CHAPTER 7.3.4.2</b>							
Reactive Sulfide	ND	100		mg/Kg	1	4/21/2005	HML

Qualifiers: ND - Not Detected at the Reporting Limit (RL).  
 J - Analyte detected below the Reporting Limit  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range  
 T - Tentatively Identified Compound (TIC)

# ANALYTICAL RESULTS



Date: 03-May-05

CLIENT: DOUBLE EAGLE STEEL COATING COMPANY

Client Sample ID: FILTER CAKE DE05001

Work Order No: 05040748

Tag Number:

Project:

Collection Date: 4/18/2005

Lab ID: 05040748-001B

Matrix: LEACHATE

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed	Analyst
ICP METALS; LEACHATE: METHOD EPA 1311/6010B							
Arsenic	ND	0.10		mg/L	1	4/26/2005	CAW
Barium	0.81	0.10		mg/L	1	4/26/2005	CAW
Cadmium	ND	0.050		mg/L	1	4/26/2005	CAW
Chromium	0.54	0.10		mg/L	1	4/26/2005	CAW
Lead	ND	0.10		mg/L	1	4/26/2005	CAW
Selenium	ND	0.20		mg/L	1	4/26/2005	CAW
Silver	ND	0.020		mg/L	1	4/26/2005	CAW
MERCURY; LEACHED: METHOD EPA 1311/7470A							
Mercury	ND	0.0010		mg/L	1	4/26/2005	RS

## Qualifiers:

ND - Not Detected at the Reporting Limit (RL).

J - Analyte detected below the Reporting Limit

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

T - Tentatively Identified Compound (TIC)

# Clayton Group Services

Date: 03-May-05

CLIENT: DOUBLE EAGLE STEEL COATING CO

Work Order: 05040748

Project:

## QC SUMMARY REPORT

Method Blank

Sample ID: MB-18715		Batch ID: 18715		Units: mg/L		Analysis Date: 04/26/2005				Prep Date: 04/26/2005	
Client ID:		Run ID: ME_PE3C_050426A				SeqNo: 767516					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.1									
Barium	ND	0.1									
Cadmium	ND	0.05									
Chromium	ND	0.1									
Lead	ND	0.1									
Selenium	ND	0.2									
Silver	ND	0.02									

Sample ID: MB-18716		Batch ID: 18716		Units: µg/L		Analysis Date: 04/26/2005				Prep Date: 04/26/2005		
Client ID:		Run ID: ME_CE5E_050426C				SeqNo: 767312						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Mercury	ND	0.2										

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



CLIENT: DOUBLE EAGLE STEEL COATING CO

Work Order: 05040748

Project:

## QC SUMMARY REPORT

Method Blank

Sample ID: MB-18668		Batch ID: 18668		Units: µg/Kg		Analysis Date: 04/22/2005			Prep Date: 04/21/2005		
Client ID:		Run ID: PP_HP4D_050422A		SeqNo: 766014							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	330									
Aroclor 1221	ND	330									
Aroclor 1232	ND	330									
Aroclor 1242	ND	330									
Aroclor 1248	ND	330									
Aroclor 1254	ND	330									
Aroclor 1260	ND	330									
Surr: Decachlorobiphenyl	14	0	16.7	0	83.8	20.8	188	0			
Surr: Tetrachloro-m-xylene	12	0	16.7	0	71.9	6.8	140	0			

Sample ID: MB-R65740		Batch ID: R65740		Units: pH Units		Analysis Date: 04/27/2005 5:43:00 PM				Prep Date:	
Client ID:		Run ID: WC_OR17Q_050427A				SeqNo: 768181					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	6.2	1									

Sample ID: MB-R65477		Batch ID: R65477		Units: mg/Kg		Analysis Date: 04/21/2005			Prep Date:		
Client ID:		Run ID: WC_PE10J_050421A				SeqNo: 765392					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Cyanide	ND	0.1									

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: DOUBLE EAGLE STEEL COATING CO

Work Order: 05040748

Project:

## QC SUMMARY REPORT

Method Blank

Sample ID: MB-R65476	Batch ID: R65476	Units: mg/Kg	Analysis Date: 04/21/2005	Prep Date:							
Client ID:	Run ID: WC_MA7G_050421A	SeqNo: 765383									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Sulfide	ND	100									

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



## Clayton Group Services

Date: 03-May-05

CLIENT: DOUBLE EAGLE STEEL COATING CO

Work Order: 05040748

Project:

## QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: LCS-18715		Batch ID: 18715		Units: mg/L		Analysis Date: 04/26/2005			Prep Date: 04/26/2005		
Client ID:		Run ID: ME_PE3C_050426A				SeqNo: 767517					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	4.88	0.1	5	0	97.6	84	113	0			
Barium	4.88	0.1	5	0	97.6	87.6	112	0			
Cadmium	4.87	0.05	5	0	97.4	86.9	113	0			
Chromium	4.79	0.1	5	0	95.8	84.6	112	0			
Lead	4.8	0.1	5	0	96	86.2	111	0			
Selenium	4.97	0.2	5	0	99.4	82	114	0			
Silver	4.97	0.02	5	0	99.4	77.9	118	0			

Sample ID: LCS-18716		Batch ID: 18716		Units: µg/L		Analysis Date: 04/26/2005			Prep Date: 04/26/2005		
Client ID:		Run ID: ME_CE5E_050426C				SeqNo: 767313					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.76	0.2	2	0	88	75.3	124	0			

Sample ID: LCS-18668	Batch ID: 18668	Units: µg/Kg			Analysis Date: 04/22/2005				Prep Date: 04/21/2005		
Client ID:	Run ID: PP_HP4D_050422A				SeqNo: 766015						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	225.3	330	333	0	67.7	28.9	142	0			J
Aroclor 1260	250.7	330	333	0	75.3	38.7	148	0			J
Surr: Decachlorobiphenyl	14	0	16.7	0	83.8	20.8	188	0			
Surr: Tetrachloro-m-xylene	10.33	0	16.7	0	61.9	6.8	140	0			

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



CLIENT: DOUBLE EAGLE STEEL COATING CO

Work Order: 05040748

Project:

## QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: LCS-R65477		Batch ID: R65477		Units: mg/Kg		Analysis Date: 04/21/2005			Prep Date:		
Client ID:		Run ID: WC_PE10J_050421A		SeqNo: 765393							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Cyanide	6.8	0.1	100	0	6.8	1.41	13.3	0			

Sample ID: LCS-R65476	Batch ID: R65476	Units: mg/Kg				Analysis Date: 04/21/2005				Prep Date:	
Client ID:		Run ID: WC_MA7G_050421A				SeqNo: 765384					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Reactive Sulfide	70.52	100	91.38	0	77.2	4.19	106	0			J

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank





# Clayton Group Services

Date: 03-May-05

CLIENT: DOUBLE EAGLE STEEL COATING CO

Work Order: 05040748

Project:

## QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 05040691-002B-MS		Batch ID: 18715		Units: mg/L		Analysis Date: 04/26/2005			Prep Date: 04/26/2005		
Client ID:		Run ID: ME_PE3C_050426A				SeqNo: 767520					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	4.93	0.1	5	0	98.6	82.5	120	0			
Barium	5.23	0.1	5	0.314	98.3	81.1	116	0			
Cadmium	4.89	0.05	5	0	97.8	81.6	115	0			
Chromium	4.87	0.1	5	0	97.4	80.9	112	0			
Lead	4.83	0.1	5	0	96.6	80.5	113	0			
Selenium	4.92	0.2	5	0	98.4	81.3	120	0			
Silver	4.99	0.02	5	0	99.8	70.1	123	0			

Sample ID: 05040691-002B-MSD		Batch ID: 18715		Units: mg/L		Analysis Date: 04/26/2005			Prep Date: 04/26/2005		
Client ID:		Run ID: ME_PE3C_050426A				SeqNo: 767521					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	4.89	0.1	5	0	97.8	82.5	120	4.93	0.815	8.61	
Barium	5.17	0.1	5	0.314	97.1	81.1	116	5.23	1.15	6.14	
Cadmium	4.78	0.05	5	0	95.6	81.6	115	4.89	2.28	5.93	
Chromium	4.83	0.1	5	0	96.6	80.9	112	4.87	0.825	5.53	
Lead	4.74	0.1	5	0	94.8	80.5	113	4.83	1.88	5.79	
Selenium	4.94	0.2	5	0	98.8	81.3	120	4.92	0.406	10.6	
Silver	5.02	0.02	5	0	100	70.1	123	4.99	0.599	10.2	

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



CLIENT: DOUBLE EAGLE STEEL COATING CO

Work Order: 05040748

Project:

## QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 05040978-001A-MS		Batch ID: 18716		Units: µg/L		Analysis Date: 04/26/2005			Prep Date: 04/26/2005		
Client ID:		Run ID: ME_CE5E_050426C				SeqNo: 767322					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.89	0.2	2	0	94.5	69.7	126	0			

Sample ID: 05040978-001A-MSD	Batch ID: 18716	Units: µg/L	Analysis Date: 04/26/2005					Prep Date: 04/26/2005			
Client ID:	Run ID: ME_CE5E_050426C		SeqNo: 767323								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.81	0.2	2	0	90.5	69.7	126	1.89	4.32	21.8	

Sample ID: 05040748-001AMS	Batch ID: 18668	Units: µg/Kg	Analysis Date: 04/22/2005				Prep Date: 04/21/2005				
Client ID: FILTER CAKE DE05001	Run ID: PP_HP4D_050422A	SeqNo: 766019									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	227.7	330	333	0	68.4	13	148	0			J
Aroclor 1260	270.7	330	333	0	81.3	19.1	155	0			J
Surr: Decachlorobiphenyl	15	0	16.7	0	89.8	8.72	160	0			
Surr: Tetrachloro-m-xylene	9.667	0	16.7	0	57.9	0.5	132	0			

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: DOUBLE EAGLE STEEL COATING CO

Work Order: 05040748

Project:

## QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Sample ID: 05040748-001AMSD		Batch ID: 18668		Units: µg/Kg		Analysis Date: 04/22/2005			Prep Date: 04/21/2005		
Client ID: FILTER CAKE DE05001		Run ID: PP_HP4D_050422A				SeqNo: 766020					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	225.7	330	333	0	67.8	13	148	227.7	0.882	75.2	J
Aroclor 1260	266.7	330	333	0	80.1	19.1	155	270.7	1.49	70.3	J
Surr: Decachlorobiphenyl	14.67	0	16.7	0	87.8	8.72	160	15	2.25	0	
Surr: Tetrachloro-m-xylene	10.33	0	16.7	0	61.9	0.5	132	9.667	6.67	0	

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below Reporting Limit

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

**CLIENT:** DOUBLE EAGLE STEEL COATING CO

**Work Order:** 05040748

**Project:**
**Analysis:** PCBs; Soil: Method 8082

## QC SUMMARY REPORT SURROGATE RECOVERIES

Sample ID	CL10BZ2	XYL2456CLM						
05040630-001A	71.9	63.9						
05040641-008A	67.9	67.9						
05040748-001A	75.8	65.9						
05040748-001AMS	89.8	57.9						
05040748-001AMS	87.8	61.9						
05040778-001A	39.9	35.9						
05040778-002A	55.9	47.9						
LCS-18668	83.8	61.9						
MB-18668	83.8	71.9						

Acronym	Surrogate	QC Limits
CL10BZ2	= Decachlorobiphenyl	8.72-160
XYL2456CLM	= Tetrachloro-m-xylene	0.5-132

\* Surrogate recovery outside acceptance limits



Date: 19-Feb-01

## ANALYTICAL RESULTS

CLIENT: DOUBLE EAGLE STEEL COATING COMPANY

Client Sample ID: DOWNTURN CAUSTIC  
CLEANUP #4243

Work Order No: 01020184

Tag Number:

Project: Waste Analysis

Collection Date: 02/06/2001

Lab ID: 01020184-001A

Matrix: OIL

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed
IGNITABILITY; METHOD EPA 1010						Analyst: LRB
Ignitability	>200	0		°F	1	02/07/2001
PH; METHOD EPA 150.1						Analyst: MJR
pH	10.8	0		pH Units	1	02/07/2001
REACTIVE CYANIDE, EPA SW 846 CHAPTER 7.3.3.2						Analyst: MJR
Reactive Cyanide	ND	0.10		mg/Kg	1	02/08/2001
REACTIVE SULFIDE; EPA SW 846 CHAPTER 7.3.4.2						Analyst: MJR
Reactive Sulfide	ND	96		mg/Kg	1	02/08/2001

### Qualifiers:

ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range



Date: 19-Feb-01

## ANALYTICAL RESULTS

CLIENT: DOUBLE EAGLE STEEL COATING COMPANY Client Sample ID: DOWNTURN CALSTIC  
CLEANUP #4242  
Work Order No: 01020184 Tag Number:  
Project: Waste Analysis Collection Date: 02/06/2001  
Lab ID: 01020184-001B Matrix: OIL

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed
PCBS BY GC; METHODS EPA 600/8082						
Aroclor 1016	ND	2.0		mg/Kg	1	02/12/2001
Aroclor 1221	ND	2.0		mg/Kg	1	02/12/2001
Aroclor 1232	ND	2.0		mg/Kg	1	02/12/2001
Aroclor 1242	ND	2.0		mg/Kg	1	02/12/2001
Aroclor 1248	ND	2.0		mg/Kg	1	02/12/2001
Aroclor 1254	ND	2.0		mg/Kg	1	02/12/2001
Aroclor 1260	ND	2.0		mg/Kg	1	02/12/2001

Analyst: BVP

Qualifiers:  
ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Concentration Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range



## ANALYTICAL RESULTS

Date: 19-Feb-07

CLIENT: DOUBLE EAGLE STEEL COATING COMPANY Client Sample ID: DOWNTURN CAUSTIC  
CLEANUP #4242  
Work Order No: 01020184 Tag Number:  
Project: Waste Analysis Collection Date: 02/06/2001  
Lab ID: 01020184-001C Matrix: LEACHATE

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed
ICP/MS METALS; LEACHED; METHOD EPA 6020						Analyst: RS
Arsenic	1008.4	5.0		µg/L	1	02/12/2001
Barium	1.042	2.0		µg/L	1	02/12/2001
Cadmium	10000	0.20		µg/L	1	02/12/2001
Chromium	1.088	1.0		µg/L	1	02/12/2001
Copper	10040	3.0		µg/L	1	02/12/2001
Selenium	ND	5.0		µg/L	1	02/12/2001
Silver	000.70	0.50		µg/L	1	02/12/2001
MERCURY; METHOD EPA 1311/7470A						Analyst: CAW
Mercury	ND	0.0010		mg/L	1	02/12/2001

per John Leonard: nickel, thallium, and antimony are not part of process and are not expected contaminants.

Qualifiers:  
ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
H - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range





## ANALYTICAL RESULTS

Date: 19-Feb-01

CLIENT: DOUBLE EAGLE STEEL COATING COMPANY Client Sample ID: DOWNTURN CAUSTIC  
CLEANUP #4242

Workorder No.: 01020184

Tag Number:

Project: Waste Analysis

Collection Date: 2/6/2001

Lab ID: 01020184-001D

Matrix: OIL

Analyses	Reporting			DF	Date Analyzed
	Result	Limit	Units		
TOTAL HALIDES; METHOD EPA 8076					
Total Halides	130	9.6	mg/Kg	1	02/18/2001

Analyst: GW

Qualifiers: N) - Not Detected at the reporting limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range



## ANALYTICAL RESULTS

Date: 19-Feb-01

CLIENT: DOUBLE EAGLE STEEL COATING COMPANY Client Sample ID: LAB BLANK  
Work Order No: 01020184 Tag Number:  
Project: Waste Analysis Collection Date: 02/06/2001  
Lab ID: 01020184-002A Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed
POBS BY GC; METHODS EPA 600/8082						
						Analyst: BVP
Aroclor 1016	ND	2.0		mg/Kg	1	02/12/2001
Aroclor 1221	ND	2.0		mg/Kg	1	02/12/2001
Aroclor 1232	ND	2.0		mg/Kg	1	02/12/2001
Aroclor 1242	ND	2.0		mg/Kg	1	02/12/2001
Aroclor 1248	ND	2.0		mg/Kg	1	02/12/2001
Aroclor 1254	ND	2.0		mg/Kg	1	02/12/2001
Aroclor 1260	ND	2.0		mg/Kg	1	02/12/2001
REACTIVE CYANIDE, EPA SW 846 CHAPTER 7.3.3.2						
						Analyst: MJR
Reactive Cyanide	ND	0.10		mg/Kg	1	02/08/2001
REACTIVE SULFIDE, EPA SW 846 CHAPTER 7.3.4.2						
						Analyst: MJR
Reactive Sulfide	ND	96		mg/Kg	1	02/08/2001

Qualifiers:  
N - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range



Date: 19-Feb-01

## ANALYTICAL RESULTS

CLIENT:	DOUBLE EAGLE STEEL COATING COMPANY	Client Sample ID:	LEACHATE BLANK
Work Order No:	01020184	Tag Number:	
Project:	Waste Analysis	Collection Date:	02/06/2001
Lab ID:	01020184-002B	Matrix:	LEACHATE

Analyses	Result	Reporting Limit	Qual	Units	DF	Date Analyzed
ICP/MS METALS:LEACHED: METHOD EPA 6020						Analyst: RS
Arsenic	ND	5.0		µg/L	1	02/12/2001
Barium	ND	2.0		µg/L	1	02/12/2001
Cadmium	ND	0.20		µg/L	1	02/12/2001
Chromium	ND	1.0		µg/L	1	02/12/2001
Lead	ND	3.0		µg/L	1	02/12/2001
Selenium	ND	5.0		µg/L	1	02/12/2001
Silver	ND	0.50		µg/L	1	02/12/2001
MERCURY: METHOD EPA 1311/7470A						Analyst: CAW
Mercury	ND	0.0010		mg/L	1	02/12/2001

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

## MATERIAL SAFETY DATA SHEET

## ALLOY STANDARDS

page 1 of 3

SECTION I

LabChem Inc.  
200 William Pitt Way  
Pittsburgh, PA 15238

revised: 8/5/95  
contact: Al Beranek  
phone: (412)826-5230

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

NAME: ALLOY STANDARDS (zinc chloride, ferric chloride, potassium chloride, citric acid)

## COMPONENTS:

(1) zinc chloride, 10.4-17.5%

(2) ferric chloride, hexahydrate, 1.5-10.2%

(3) potassium chloride, 25-43%

(4) citric acid, 1%

(5) water, balance

## CAS:

7646-85-7

10025-77-1

7447-40-7

77-92-9

7732-18-5

## FORMULA/F.WT.

ZnCl<sub>2</sub> / 136.28FeCl<sub>3</sub>·6H<sub>2</sub>O / 270.30

KCl / 74.55

C<sub>6</sub>H<sub>8</sub>O<sub>7</sub> / 192.14H<sub>2</sub>O / 18.00

NFPA RATING (0-4): Health- Fire- Reactivity- n/a

SECTION III - PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling pt:	Melting pt:	Sp. gravity:	Evaporation rate:	Vapor press/density:	pH:
n/a	n/a	n/a	n/a	n/a	slightly acidic

Appearance/Odor: heavy, dark amber solution/odorless.

Solubility: soluble in water.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash pt: non-combustible Explosion level-lower(LEL): n/a -upper(UEL): n/a Autoignition: n/a

Extinguishing Media: dry chemical, carbon dioxide, water spray or foam.

Firefighting: evaporation produces corrosive and hazardous white toxic fumes of zinc chloride. Move containers if possible, cool with water. Avoid breathing vapors.

SECTION V - REACTIVITY DATA

Stability: stable at normal temperatures and pressures.

Condition to Avoid: incompatibilities - zinc chloride reacts with alkalis.

Hazardous Decomposition/Byproducts: evaporation and thermal decomposition produces white toxic fumes of zinc chloride and potassium oxide.

Hazardous Polymerization: not known to occur.

Alloy standards

MSDS Cont'd

page 2 of 3

**SECTION VI - HEALTH HAZARD DATA**

Toxicity: zinc chloride-- fume is a toxic and severe eye, pulmonary, and skin corrosive irritant. TCLO: 4800mg/M3/30min Inh-human. LD50: 350mg/Kg Oral-rat; 350mg/Kg Oral-mouse; 200mg/Kg Oral-guinea pig. Mutagenic/tumorigenic/reproductive data (RTECS). Ferric chloride-- an eye, mucous membrane, and skin irritant; poisoning affects digestivetract, respiratory, cardiovascular, and central nervous systems, liver and kidneys. LDLO: 900mg/Kg Oral-rat; 7mg/Kg IV-rabbit. LD50: 260mg/Kg IP-mouse. Mutagenic data (RTECS). Potassium chloride-- toxic eye, mucous membrane irritant. Poisoning affects the blood and heart; persons with renal impairment may be at increased risk. LD50: 383mg/Kg Oral-mouse; 3020mg/Kg Oral-rat; 2500mg/Kg Oral-guinea pig; 552mg/Kg IP-mouse; 660mg/Kg IP-rat; 39mg/Kg IV-rat; 117mg/Kg IV-mouse. LDLO: 938mg/Kg/2day Oral-infant; 900mg/Kg IP-guinea pig; 2550mg/Kg SC-guinea pig. Mutagenic data (RTECS). Citric acid-- 11700mg/Kg oral-rat LD50; 5040mg/Kg oral-mouse LD50; 883mg/Kg intraperitoneal-rat LD50; 981mg/Kg intraperitoneal-mouse LD50; 750ug/24hr eye-rabbit severe; 500mg/24hr skin-rabbit moderate.

Carcinogenicity: none classified by OSHA, IARC, NTP.

**Exposure Limits:**

	OSHA-PEL:	ACGIH-TWA:	-STEL:	TLV CEILING:	IDLH:
(1) ZnCl2 fume	1mg/M3	1mg/M3	2mg/M3	n/a	50mg/M3
(2) iron salts (as Fe)	n/a	1mg/M3	n/a	n/a	n/a
(3)	n/a	n/a	n/a	n/a	n/a
(4)	n/a	n/a	n/a	n/a	n/a

Acute Health Hazards: zinc chloride-- inhalation-irritation to nose thorat; coughing, copious sputum, chest pain, pulmonary edema, bronchial pneumonia, pulmonary fibrosis, cyanosis, fever, pain, coma. Contact can produce conjunctivitis, corneal damage, dermatitis, itching, burns to skin or ulceration/necrosis. Ingestion produces severe burning pain, nausea, vomiting, diarrhea, bloody stools, hematemesis, hematuria, albuminuria, perforation of tract/stomach can occur with nephrosis. Death may occur from cardiovascular collapse. Ferric chloride-- may irritate skin, eye, mucous membranes; inhalation unlikely due to low vapor pressure. Ingestion can result in abdominal pain, vomiting with blood, diarrhea, dehydration, shock, pallor, cyanosis, hypothermia, acidosis, coagulation defects, respiratory and cardiac involvement, vasomotor instability leading to coma and death. Survivors may develop reversible liver damage, gastric scarring and pyloric obstruction. Potassium chloride-- Inhalation - respiratory irritation with coughing, sore throat. Skin - redness and irritation. Ingestion - large doses causes nausea, vomiting, abdominal pain, purging and weakness. Clotting factor changes may occur. Acute potassium intoxication unlikely, pylorospasm and vomiting rapidly eliminate the salt. Prior renal impairment can result in slow, weak pulse, electrocardiographic changes, arrhythmias, heart block, hypotension, and cardiac arrest. Respiratory paralysis may occur. Citric acid-- .may cause irritation to skin and eyes. Prolonged contact may cause burns to skin and eyes. May cause conjunctivitis. Ingestion may cause sore throat, abdominal pain, nausea.

Chronic Health Hazards: conjunctivitis, dermatitis with possible ulceration and necrosis. Long term effects of inhalation in human unknown (reference animal) mutagenic/tumorigenic/reproductive data (RTECS).

**First Aid:**

Inhalation: move victim to fresh air, give artificial respiration if necessary. Medical personnel may give oxygen. Treat for fever. Get medial aid at once.

Skin: remove contaminated clothing, wash affected area with soap and water. Flush with large amounts of water (15-20min.) until chemical is gone. Get medical aid for treatment of chemical burns.

Eyes: Immediately flush with water lifting upper/lower lids occasionally (15-20min.) until chemical is gone. Get medical aid at once.

Alloy solutionsMSDS. Cont'dpage 3 of 3

Ingestion: give conscious non-convulsive victim large quantities of water to dilute chemical. Repeat if vomited - do not induce vomiting. Keep victim warm, at rest. Get medical aid at once.

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#### SECTION VII - PRECAUTION FOR SAFE HANDLING AND USE

Spills or Leaks: scoop into clean dry container (plastic, stainless steel, glass), cover and label. Isolate area until clean. Wash area down with flooding amounts of water. Neutralize solutions with lime or sodium bicarbonate.

Disposal: dispose in accordance with Federal, State, and local regulations.

Storage and handling: store dry at room temperature away from alkali and incompatible substances.

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#### SECTION VIII - CONTROL MEASURES

Respiratory Protection: provide local exhaust or general dilution ventilation to meet Permissible Exposure Limits (PEL). Respirators: not required for routine laboratory use. High levels fume - 10mg/M3  
FuHiEP/SA/SCBA...50mg/M3 HeEPF/SAF/SCBAF...1000mg/M3 PAPHIE...2000mg/M3 SAF:PD,PP,CF... Escape  
HiEP/SCBA (Respirator Codes: DHEW (NIOSH) Publication No. 78-210)

Protective Clothing and Equipment: wear gloves and eye protection. Provide an eye-wash fountain in the immediate work area. Do not wear contact lenses when working with chemicals.

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Information in this MSDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and LabChem Inc. assumes no liability resulting from the use of this MSDS. The user must determine suitability of this information for his application.

[Note: n/a means "not applicable" or data "not available".]

## SOURCE CODES

Source codes describe the type of process or activity (i.e., source) from which a hazardous waste was generated. Review the groups and pick the appropriate code.

Code	Source Code Group
<b>Wastes from Ongoing Production and Service Processes (waste from general day to day manufacturing, production, or maintenance activities)</b>	
G01	Dip, flush or spray rinsing (using solvents to clean or prepare parts or assemblies for further processing - i.e. painting or assembly)
G02	Stripping and acid or caustic cleaning (using caustics to remove coatings or layers from parts or assemblies )
G03	Plating and phosphating (electro- or non-electroplating or phosphating)
G04	Etching (using caustics or other methods to remove layers or partial layers)
G05	Metal forming and treatment (pickling, heat treating, punching, bending, annealing, grinding, hardening, etc.)
G06	Painting and coating (manufacturing, building, or maintenance)
G07	Product and by-product processing (direct flow of wastes from chemical manufacturing or processing, etc.)
G08	Removal of spent process liquids or catalysts (bulk removal of wastes from chemical manufacturing or processing, etc.)
G09	Other production or service-related processes from which the waste is a direct outflow or result (specify in comments)
<b>Other Intermittent Events or Processes</b>	
G11	Discarding off-specification or out-of-date chemicals or products (unused chemicals or products - corresponds to P and U hazardous waste codes)
G12	Lagoon or sediment dragout and leachate collection (large scale operations in open pits, ponds, or lagoons)
G13	Cleaning out process equipment (periodic sludge or residual removal from enclosed processes including internal scrubbing or cleaning)
G14	Removal of tank sludge, sediments, or slag (periodic sludge or residual removal from storage tanks including internal scrubbing or cleaning)
G15	Process equipment change-out or discontinuation of equipment use (final materials and residuals removal including cleaning)
G16	Oil changes and filter or battery replacement (automotive, machinery, etc)
G19	Other one-time or intermittent processes (specify in comments)
<b>Pollution Control and Waste Management Process Residuals</b>	
G21	Air pollution control devices (baghouse dust or ash from stack scrubbers or precipitators; vapor collection, etc.)
G22	Laboratory analytical wastes (used chemicals from laboratory operations)
G23	Wastewater treatment (sludge, filter cake, etc., including wastes from treatment before discharge by NPDES or POTW or by UIC disposal)
G24	Solvent or product distillation or recovery (sludge, waste solvent, bottoms, from recovery/recycling of used product)
G25	Hazardous waste management - indicate management method (for residuals from regulated hazardous waste treatment processes - enter the related H code)
G26	Leachate collection (from landfill operations or other land units)
G27	Hazardous residual from treatment or recovery of universal waste



## MANAGEMENT METHOD CODES

(Continued)

Code	Management Method Code Group
<b>Disposal</b>	
H131	Land treatment or application (to include any prior treatment and/or stabilization)
H132	Landfill or surface impoundment that will be closed as landfill (to include prior treatment and/or stabilization)
H134	Deepwell or underground injection (with or without treatment; this waste was counted as hazardous waste)
H135	Discharge to sewer/POTW or NPDES (with prior storage - with or without treatment)
<b>Transfer Off Site</b>	
H141	The site receiving this waste stored/bulked and transferred the waste with no treatment or recovery (H010-H129), fuel blending (H061), or disposal (H131-H135) at that receiving site. <b>Do not use this code on Form GM in Section 1- Box D or in Section 2.</b>

TABLE UTS-269.48 UNIVERSAL TREATMENT STANDARDS

ORGANIC CONSTITUENTS	mg/L	ppm	ORGANIC CONSTITUENTS	mg/L	ppm	ORGANIC CONSTITUENTS	mg/L	ppm	ORGANIC CONSTITUENTS	mg/L	ppm
A2213	0.042	1.4	m-Cresol	0.11	5.6	Fluoranthene	0.068	3.4	Phenol	0.039	6.2
naphthene	0.059	3.4	p-Cresol	0.77	5.6	Fluorene	0.059	3.4	o-Phenylenediamine	0.056	5.6
Acenaphthylene	0.059	3.4	o-Cresol	0.77	5.6	Formate hydrochloride	0.056	1.4	Phosphate	0.021	4.6
Acetone	0.28	160	m-Cumaryl methylcarbamate	0.056	1.4	Formarsenate	0.056	1.4	Phthalic acid	0.055	28
Acetonitrile	5.6	38	Cyclohexanone	0.36	75 mg/L	Heptachlor	0.0012	0.066	Phthalic anhydride	0.055	28
Acetophenone	0.010	9.7	o,p'-DDD	0.023	0.087	Heptachlor epoxide	0.016	0.0066	Physoestimine	0.056	1.4
2-Acetylaminofluorene	0.059	140	p,p'-DDD	0.023	0.087	Hexachlorobenzene	0.055	10	Physoestimine salicylate	0.056	1.4
Acrolein	0.29	NA	o,p'-DDE	0.031	0.087	Hexachlorobutadiene	0.055	5.6	Promecarb	0.056	1.4
Acrylamide	19	23	p,p'-DDE	0.031	0.087	Hexachlorocyclopentadiene	0.057	2.4	Pronamide	0.093	1.5
Acrylonitrile	0.24	84	o,p'-DDT	0.0039	0.087	hexachlorodibenzo-furans	0.00063	0.001	Propham	0.056	1.4
Aldecarb sulfone	0.056	0.28	p,p'-DDT	0.0039	0.087	Hexachlorodibenzo-p-dioxins	0.00063	0.001	Propoxur	0.056	1.4
Aldrin	0.021	0.066	Dibenz(a,h)anthracene	0.055	8.2	Hexachloroethane	0.055	30	Prosulfocarb	0.042	1.4
4-Aminobiphenyl	0.13	NA	Dibenz(a,c)pyrene	0.061	NA	Hexachloropropylene	0.035	30	Pyrene	0.067	8.2
Aniline	0.81	14	1,2-Dibromo-o-3-chloropropane	0.11	15	Indeno(1,2,3-c,d)pyrene	0.0055	3.4	Pyridine	0.014	16
Anthracene	0.059	3.4	1,2-Dibromochloroethylene (dibromide)	0.028	15	Iodomethane	0.19	65	Safrole	0.081	22
Aramid	0.36	NA	Dibromoethane	0.11	15	Isobutanol	5.6	170	1,2,4,5-Tetrachlorobenzene	0.055	1.4
Barban	0.056	1.4	m-Dichlorobenzene	0.036	6.0	Isodrin	0.021	0.066	Tetrachlorodibenzo-furans	0.00063	0.001
Bendiocarb	0.056	1.4	o-Dichlorobenzene	0.088	6.0	Isolan	0.056	1.4	Tetrachlorodibenzo-p-dioxins	0.00063	0.001
Bendiocarb phenol	0.056	1.4	p-Dichlorobenzene	0.09	6.0	Isoafrile	0.081	2.6	1,1,1,2-Tetrachloroethane	0.057	6.0
Benomyl	0.056	1.4	Dichlorodifluoromethane	0.23	7.2	Kepone	0.0011	0.13	1,1,2,2-Tetrachloroethane	0.057	6.0
alpha-BHC	0.0001	0.066	1,1-Dichloroethane	0.059	6.0	Methacrylonitrile	0.24	84	Tetrachloroethylene	0.056	6.0
beta-BHC	0.0001	0.066	1,2-Dichloroethane	0.21	6.0	Methanol	5.6	75 mg/L	2,3,4,6-Tetrachlorophenol	0.030	7.4
delta-BHC	0.023	0.066	1,1-Dichloroethylene	0.025	6.0	Methopropylene	0.081	1.5	Thiodicarb	0.019	1.4
gamma-BHC	0.0017	0.066	trans-1,2-Dichloroethylene	0.054	30	Methiocarb	0.056	1.4	Thiophanate-methyl	0.056	1.4
Benzal Chloride	0.055	6.0	2,4-Dichlorophenol	0.044	14	Methomyl	0.028	0.14	Tupate	0.056	0.28
Benz(a)anthracene	0.059	3.5	2,6-Dichlorophenol	0.044	14	Methoxychlor	0.25	0.18	Toluene	0.080	10
Benzene	0.14	10	2,4-D	0.72	10	3-Methylchoanthrene	0.0055	15	Toxaphene	0.0095	2.6
Benzo(b)fluoranthene	0.11	6.8	1,2-Dichloropropane	0.85	18	(4-Methylene bis(2-chloroaniline))	0.50	30	Triallate	0.042	1.4
Benzo(k)fluoranthene	0.11	6.8	cis-1,3-Dichloropropylene	0.036	18	Methylene chloride	0.089	30	1,2,4-Trichlorobenzene	0.055	19
Benzo(g,h,i)perylene	0.0055	1.8	trans-1,3-Dichloropropylene	0.036	18	Methyl ethyl ketone	0.28	36	1,1,1-Trichloroethane	0.054	6.0
Benzo(a)pyrene	0.061	3.4	Dielskin	0.017	0.13	Methyl isobutyl ketone	0.14	35	1,1,2-Trichloroethane	0.054	6.0
bis(2-Chloroethoxy) methane	0.036	7.2	Diethyl phthalate	0.20	28	Methyl methacrylate	0.14	160	Trichloroethylene	0.054	6.0
bis(2-Chloroethyl) ether	0.033	6.0	Diethylene glycol, dicarbamate	0.056	1.4	Methyl methanesulfonate	0.018	NA	Trichlorofluoromethane	0.020	30
bis(2-Ethylhexyl) phthalate	0.28	28	p-Dimethylaminoazobenzene	0.13	NA	Methyl parathion	0.014	4.6	2,4,5-Trichlorophenol	0.018	7.4
Bromodichloromethane	0.33	15	2,4-Dimethylphenol	0.056	14	Metolcarb	0.056	1.4	2,4,6-Trichlorophenol	0.055	7.4
Bromoforn (Tribromomethane)	0.63	15	Dimethyl phthalate	0.047	28	Mexacarbate	0.056	1.4	2,4,5-T	0.72	7.9
Bromomethane (Methyl bromide)	0.11	15	Dimetilan	0.056	1.4	Molinate	0.042	1.4	2,4,5-TP (Silvex)	0.72	7.9
4-Bromophenyl phenyl ether	0.055	15	Di-n-butyl phthalate	0.057	28	2-Naphthylamine	0.52	NA	1,2,3-Trichloropropane	0.85	30
n-Butanol (n-Butyl alcohol)	5.6	2.6	1,4-Dinitrobenzene	0.32	2.3	Naphthalene	0.059	5.6	1,1,2-Trichloro-1,2,2-trifluoroethane	0.057	30
Butyl benzyl phthalate	0.017	28	4,6-Dinitro-o-cresol	0.28	160	o-Nitroaniline	0.27	14	Triethylamine	0.081	1.5
Butylate	0.042	1.4	2,4-Dinitrophenol	0.12	160	p-Nitroaniline	0.028	28	Tri(2,3-Dibromopropyl) phosphate	0.11	0.10
2-sec-Butyl-4,6-dinitrophenol (Dinoset)	0.066	2.5	2,4-Dinitrotoluene	0.32	140	Nitrobenzene	0.068	14	Vernolate	0.042	1.4
Carbarb	0.006	0.14	2,6-Dinitrotoluene	0.55	28	5-Nitro-o-toluidine	0.32	28	Vinyl chloride	0.27	6.0
Carbendazim	0.056	1.4	Di-n-octyl phthalate	0.017	28	o-Nitrophenol	0.028	13	Xylene-sum of mixed isomers	0.32	30
Carbofuran	0.006	0.14	Di-n-propylnitrosamine	0.40	14	p-Nitrophenol	0.12	29	METALS AND INORGANICS	WV mg/L	ppm mg/L
Carbofuran phenol	0.056	1.4	1,4-Dioxane	12.0	170	N-Nitroso-di-n-butylamine	0.40	17	Antimony	1.9	1.15
Carbon disulfide	3.8	4.8 mg/L	Diphenylamine	0.92	13	N-Nitrosodimethylamine	0.40	28	Arsenic	1.4	5.0
Carbon tetrachloride	0.057	6.0	Diphenylnitrosamine	0.92	13	N-Nitrosodimethylamine	0.40	23	Barium	1.2	21
Carbosulfan	0.028	1.4	1,2-Diphenyl hydrazine	0.087	NA	N-Nitrosomethylethylamine	0.40	23	Beryllium	0.82	1.22
Chlordane (alpha and gamma)	0.0033	0.26	Disulfoton	0.017	6.2	N-Nitrosomorpholine	0.40	23	Cadmium	0.69	0.11
p-Chloroaniline	0.46	16	Dithiocarbamates (total)	0.028	28	N-Nitrosopiperidine	0.013	35	Chromium (Total)	2.77	0.60
Chlorobenzene	0.057	6.0	Endosulfan I	0.023	0.066	N-Nitrosopyrrolidine	0.013	35	Cyanide (Total)	1.2	590
Chlorobenzilate	0.10	NA	Endosulfan II	0.029	0.13	Oxamyl	0.056	0.28	Cyanide (Amenable)	0.86	30
2-Chloro-1,3-butadiene	0.057	0.28	Endosulfan sulfate	0.029	0.13	Parathion	0.014	4.6	Fluoride*	35	NA
Chlorodibromomethane	0.057	15	Endrin	0.0028	0.13	Total PCB's	0.10	10	Lead	0.69	0.75
Chloroethane	0.27	6.0	Endrin aldehyde	0.025	0.13	Pebulate	0.042	1.4	Mercury (total residues)	NA	0.20
o-form	0.046	6.0	EPTC	0.042	1.4	Pentachlorobenzene	0.055	10	Mercury (all others)	0.15	0.025
p-Chloro-m-cresol	0.018	14	Ethyl acetate	0.34	33	Pentachlorodibenzo-p-dioxins	0.00063	0.001	Nickel	3.98	11
2-Chloroethyl vinyl ether	0.062	NA	Ethyl benzene	0.057	10	Pentachlorodibenzo-furans	0.00063	0.001	Selenium	0.82	5.7
Chloromethane (Methyl Chloride)	0.19	30	Ethyl cyanide (Propanenitrile)	0.24	360	Pentachloroethane	0.055	6.0	Silver	0.43	0.14
2-Chloronaphthalene	0.055	5.6	Ethyl ether	0.12	160	Pentachloronitrobenzene	0.055	4.8	Sulfide	14	NA
2-Chlorophenol	0.044	5.7	Ethyl methacrylate	0.14	160	Pentachlorophenol	0.089	7.4	Thallium	1.4	0.20
3-Chloropropylene	0.036	30	Ethylene oxide	0.12	NA	Phenacetin	0.081	16	Vanadium*	4.3	1.6

TABLE ITS-26R-JR UNIVERSAL TREATMENT STANDARDS

ORGANIC CONSTITUENTS	mg/L	ppm	ORGANIC CONSTITUENTS	mg/L	ppm	ORGANIC CONSTITUENTS	mg/L	ppm	ORGANIC CONSTITUENTS	mg/L	ppm
A2213	0.042	1.4	m-Cresol	0.11	5.6	Fluoranthene	0.068	3.4	Phenol	0.039	6.2
Acenaphthene	0.059	3.4	p-Cresol	0.77	5.6	Fluorene	0.059	3.4	o-Phenylenediamine	0.056	5.6
phthylene	0.059	3.4	o-Cresol	0.77	5.6	Formetate hydrochloride	0.056	1.4	Phenol	0.021	4.6
Acetone	0.28	160	m-Cumyl methylcarbamate	0.056	1.4	Formate	0.056	1.4	Phthalic acid	0.055	28
Acetonitrile	5.6	38	Cyclohexanone	0.36	75 mg/L	Heptachlor	0.0012	0.066	Phthalic anhydride	0.055	28
Acetophenone	0.010	9.7	p,p'-DDD	0.023	0.087	Heptachlor epoxide	0.016	0.066	Phthalonitrile	0.056	1.4
2-Acetylaminofluorene	0.059	140	p,p'-DDD	0.023	0.087	Hexachlorobenzene	0.055	10	Phthalonitrile sodium salt	0.056	1.4
Acrolein	0.29	NA	p,p'-DDE	0.031	0.087	Hexachlorobutadiene	0.055	5.6	Promecarb	0.056	1.4
Acrylamide	19	23	p,p'-DDE	0.031	0.087	Hexachlorocyclopentadiene	0.057	2.4	Promamide	0.093	1.5
Acrylonitrile	0.24	84	p,p'-DDT	0.0039	0.087	hexachlorodibenzo-furans	0.00063	0.001	Propam	0.056	1.4
Aldecarb sulfone	0.056	0.28	p,p'-DDT	0.0039	0.087	Hexachlorodibenzo-p-dioxins	0.00063	0.001	Propoxur	0.056	1.4
Aldrin	0.021	0.066	Dibenz(a,h)anthracene	0.055	8.2	Hexachloroethane	0.055	30	Proxylcarb	0.042	1.4
4-Aminobiphenyl	0.13	NA	Dibenz(a,c)pyrene	0.061	NA	Hexachloropropylene	0.035	30	Pyrene	0.067	8.2
Aniline	0.81	14	1,2-Dibromo-3-chloropropane	0.11	15	Indeno(1,2,3-c,d)pyrene	0.0055	3.4	Pyridine	0.014	16
Anthracene	0.059	3.4	1,3-Dibromoisobutylene dibromide	0.028	15	Iodomethane	0.19	65	Saffrole	0.081	22
Arsenite	0.36	NA	Dibromoethane	0.11	15	Isobutanol	5.6	170	1,2,4,5-Tetrachlorobenzene	0.055	1.4
Barban	0.056	1.4	m-Dichlorobenzene	0.036	6.0	Isodrin	0.021	0.066	Tetrachlorodibenzo-furans	0.00063	0.001
Bendiocarb	0.056	1.4	o-Dichlorobenzene	0.088	6.0	Isolan	0.056	1.4	Tetrachlorodibenzo-p-dioxins	0.00063	0.001
Bendiocarb phenol	0.056	1.4	p-Dichlorobenzene	0.09	6.0	Isoxazole	0.081	2.6	1,1,1,2-Tetrachloroethane	0.057	6.0
Benomyl	0.056	1.4	Dichlorodifluoromethane	0.23	7.2	Kepon	0.0011	0.13	1,1,2,2-Tetrachloroethane	0.057	6.0
alpha-BHC	0.0001	0.066	1,1-Dichloroethane	0.059	6.0	Methacrylonitrile	0.24	84	Tetrachloroethylene	0.056	6.0
beta-BHC	0.0001	0.066	1,2-Dichloroethane	0.21	6.0	Methanol	5.6	75 mg/L	2,3,4,6-Tetrachlorophenol	0.030	7.4
delta-BHC	0.023	0.066	1,1-Dichloroethylene	0.025	6.0	Methacrylene	0.081	1.5	Thiodicarb	0.019	1.4
gamma-BHC	0.0017	0.066	trans-1,2-Dichloroethylene	0.054	30	Methiocarb	0.056	1.4	Thiophanate-methyl	0.056	1.4
Benzal Chloride	0.055	6.0	2,4-Dichlorophenol	0.044	14	Methomyl	0.028	0.14	Tirpate	0.056	0.28
Benz(a)anthracene	0.059	3.5	2,6-Dichlorophenol	0.044	14	Methoxychlor	0.25	0.18	Toluene	0.080	10
Benzene	0.14	10	2,4-D	0.72	10	3-Methylchoanthrene	0.0055	15	Toxaphene	0.0095	2.6
Benzobifluoranthene	0.11	6.8	1,2-Dichloropropane	0.85	18	4,4-Methylene bis(2-chloraniline)	0.50	30	Triallate	0.042	1.4
Benzokifluoranthene	0.11	6.8	cis-1,3-Dichloropropylene	0.036	18	Methylene chloride	0.089	30	1,2,4-Trichlorobenzene	0.055	19
Benzo(a,h)perylene	0.0055	1.8	trans-1,3-Dichloropropylene	0.036	18	Methyl ethyl ketone	0.28	36	1,1,1-Trichloroethane	0.054	6.0
Benzo(a)pyrene	0.061	3.4	Dieldrin	0.017	0.13	Methyl isobutyl ketone	0.14	33	1,1,2-Trichloroethane	0.054	6.0
bis(2-Chloroethoxy) methane	0.036	7.2	Diethyl phthalate	0.30	28	Methyl methacrylate	0.14	160	Trichloroethylene	0.054	6.0
bis(2-Chloroethyl) ether	0.033	6.0	Diethylene glycol, dicarbamate	0.056	1.4	Methyl methanesulfonate	0.018	NA	Trichlorofluoromethane	0.020	30
bis(2-Ethylhexyl) phthalate	0.28	28	p-Dimethylaminoazobenzene	0.13	NA	Methyl parathion	0.014	4.6	2,4,5-Trichlorophenol	0.018	7.4
Bromodichloromethane	0.35	15	2,4-Dimethylphenol	0.036	14	Metolcarb	0.056	1.4	2,4,6-Trichlorophenol	0.035	7.4
Bromoforn (Tribromomethane)	0.63	15	Dimethyl phthalate	0.047	28	Mexcarb	0.056	1.4	2,4,5-T	0.72	7.9
Bromomethane (Methyl bromide)	0.11	15	Dimethylan	0.056	1.4	Molinat	0.042	1.4	2,4,5-TP (Silvex)	0.72	7.9
4-Bromophenyl phenyl ether	0.055	15	Di-n-butyl phthalate	0.057	28	2-Naphthylamine	0.52	NA	1,2,3-Trichloropropane	0.85	30
n-Butanol (n-Butyl alcohol)	5.6	2.6	1,4-Dinitrobenzene	0.32	2.3	Naphthalene	0.059	5.6	1,1,2-Trichloro-1,1,2-trifluoroethane	0.057	30
Butyl benzyl phthalate	0.017	28	4,6-Dinitro-o-cresol	0.28	160	o-Nitroaniline	0.27	14	Triethylamine	0.081	1.5
Butylate	0.042	1.4	2,4-Dinitrophenol	0.12	160	p-Nitroaniline	0.028	28	Tri(2,3-Dibromopropyl) phosphate	0.11	0.10
2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	0.066	2.5	2,4-Dinitrotoluene	0.32	140	Nitrobenzene	0.068	14	Vemolate	0.042	1.4
Carbarv	0.006	0.14	2,6-Dinitrotoluene	0.55	28	5-Nitro-o-toluidine	0.32	28	Vinyl chloride	0.27	6.0
Carbendazim	0.056	1.4	Di-n-octyl phthalate	0.017	28	o-Nitrophenol	0.028	13	Xylene-sum of mixed isomers	0.32	30
Carbofuran	0.006	0.14	Di-n-propyl nitrosamine	0.40	14	p-Nitrophenol	0.12	29	METALS AND INORGANICS		
Carbofuran phenol	0.056	1.4	1,4-Dioxane	12.0	170	N-Nitroso-di-n-butylamine	0.40	17	Antimony	1.9	1.15
Carbon disulfide	3.8	4.8 mg/L	Diphenylamine	0.92	13	N-Nitrosodimethylamine	0.40	28	Arsenic	1.4	5.0
Carbon tetrachloride	0.057	6.0	Diphenylnitrosamine	0.92	13	N-Nitrosomethylamine	0.40	2.3	Barium	1.2	21
Carbosulfan	0.028	1.4	1,2-Diphenyl hydrazine	0.087	NA	N-Nitrosomethylamine	0.40	2.3	Beryllium	0.82	1.22
Chlordane (alpha and gamma)	0.0033	0.26	Disulfoton	0.017	6.2	N-Nitrosomorpholine	0.40	2.3	Cadmium	0.69	0.11
p-Chloroaniline	0.46	16	Dithiocarbamates (total)	0.028	28	N-Nitrosopiperidine	0.013	35	Chromium (Total)	2.77	0.60
Chlorobenzene	0.057	6.0	Endosulfan I	0.023	0.066	N-Nitrosopyrrolidine	0.013	35	Cyanide (Total)	1.2	390
Chlorobenzilate	0.10	NA	Endosulfan II	0.029	0.13	Oxamyl	0.056	0.28	Cyanide (Amenable)	0.86	30
2-Chloro-1,3-butadiene	0.057	0.28	Endosulfan sulfate	0.029	0.13	Parathion	0.014	4.6	Fluoride*	35	NA
Chlorodibromomethane	0.057	15	Endrin	0.0028	0.13	Total PCB's	0.10	10	Lead	0.69	0.75
Chloroethane	0.27	6.0	Endrin aldehyde	0.025	0.13	Pebulate	0.042	1.4	Mercury (retort residues)	NA	0.20
reform	0.046	6.0	EPTC	0.042	1.4	Pentachlorobenzene	0.055	10	Mercury (all others)	0.15	0.025
p-Chloro-m-cresol	0.018	14	Ethyl acetate	0.34	33	Pentachlorodibenzo-p-dioxins	0.00063	0.001	Nickel	3.98	11
2-Chloroethyl vinyl ether	0.062	NA	Ethyl benzene	0.057	10	Pentachlorodibenzo-furans	0.00063	0.001	Selenium	0.82	5.7
Chloroethane (Methyl Chloride)	0.19	30	Ethyl cyanide (Propanenitrile)	0.24	360	Pentachloroethane	0.055	6.0	Silver	0.43	0.14
2-Chloronaphthalene	0.055	5.6	Ethyl ether	0.12	160	Pentachloronitrobenzene	0.055	4.8	Sulfide	14	NA
2-Chlorophenol	0.044	5.7	Ethyl methacrylate	0.14	160	Pentachlorophenol	0.089	7.4	Thallium	1.4	0.30
3-Chloropropylene	0.036	30	Ethylene oxide	0.12	NA	Phenacetin	0.081	16	Vanadium	4.3	1.6



## CM&amp;E Evaluations List



DOUBLE EAGLE STEEL COATING CO DEARBORN

MID981092190

Select the Evaluation to process or choose the Add New Evaluation button below:

Your search has found 6 Evaluations.

Evaluations							Violations						
Act Loc	Seq #	Type	Date	Agency	Resp Person	Reason	Determined Date	Seq #	Type	Resp Agency	Class - Priority	Latest Sched RTC	Actual RT
MI	001	<a href="#">CEI</a>	4/13/1999	E	R5DMS	22	No violations linked to this evaluation at this time.						
MI	005	<a href="#">CEI</a>	4/13/1999	S			4/22/1999	0002	GMR	S	1 -	5/28/1999	11/19/19
MI	004	<a href="#">CEI</a>	12/9/1992	S			12/16/1992	0001	GOR	S	1 -	1/20/1993	3/26/19
MI	003	<a href="#">CEI</a>	8/9/1990	B			8/9/1990	0004	GER	B	1 -	9/4/1990	9/21/199
MI	002	<a href="#">CEI</a>	5/15/1989	B			5/15/1989	0003	GLB	B	1 -	7/1/1989	11/9/198
MI	001	<a href="#">CEI</a>	6/28/1988	X			6/28/1988	0001	GMR	X	1 -	7/31/1988	8/25/19

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**EAGLEBROOK**

Ferrous Chloride MSDS

(Material Safety Data Sheet)

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# Ferrous Chloride

## EMERGENCY NUMBERS

IN CASE OF EMERGENCIES SUCH AS PRODUCT SPILLS, CALL:

CHEMTREC (800) 424-9300

USA (TOLL FREE)

CANUTEC (613) 996-6666

CANADA (CALL COLLECT)

## 1. PRODUCT AND COMPANY IDENTIFICATION

	<u>USA</u>	<u>CANADA</u>
Supplier:	Eaglebrook, Inc. 4801 Southwick Drive Suite 200 Matteson, IL 60443	Eaglebrook, Inc. of Canada / L'Environnement Eaglebrook Québec 3405 Blvd. Marie Victorin Varennnes, Québec J3X 1T6
Telephone:	708) 747-5038 (800) 654-8373	(450) 652-0665 (800) 465-6171

Product Name:	Ferrous Chloride
Chemical Family:	Inorganic Salts
Formula:	FeCl <sub>2</sub>
Synonym:	Iron (II) Chloride
Product Use:	Water and wastewater treatment, odor removal, adhesive for dye, textile impression pigment, ink and photoengraving.



## Ferrous Chloride MSDS

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### 2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS Number #</u>	<u>Concentration</u>
Ferrous Chloride	7758-94-3	18 – 28 %
Hydrochloric Acid	7647-01-0	<5

WHMIS Classification: Class E.

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### 3. HAZARDS IDENTIFICATION

**Principal Risk:** Irritating of skin, eyes and mucous membranes.

**Potential Effects on Health:** Acute and chronic.

**Carcinogenicity:** Does not contain any carcinogens or potential carcinogens.

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### 4. FIRST AID MEASURES

<b>First Aid:</b>	In every case of overexposure seek medical attention. Move victim to fresh air.
<b>Skin Contact:</b>	Remove all contaminated clothing. Wash affected area with soap and water. If irritation persists, seek medical attention.
<b>Eye Contact:</b>	Flush immediately with water for 15 minutes. Seek immediate medical attention.
<b>Inhalation:</b>	Move to fresh air. Administer oxygen or artificial respiration if required.
<b>Ingestion:</b>	<i>If conscious</i> , give two (2) glasses of water. <b>DO NOT INDUCE VOMITING.</b> Do not give anything by mouth to an unconscious person. Seek immediate medical attention.



## Ferrous Chloride MSDS

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### 5. FIRE FIGHTING MEASURES

Flash Point: N/A

Flammable Limits: N/A      Autoignition: N/A

Hazardous Combustion Product: Hydrochloric Acid. Hydrochloric Acid could react with metals to produce hydrogen.

**Fire Fighting Instructions:** Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Extinguish main fire with appropriate extinguishing equipment.

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### 6. ACCIDENTAL RELEASE MEASURES

#### Spill, Leak, Accidental

Restrict access until clean-up operations are complete. Wear appropriate personal protective equipment. Neutralize with lime, limestone or soda ash. This could generate carbon dioxide so additional ventilation may be necessary. Collect the residues for proper disposal. Notify the appropriate environmental authorities.

### HANDLING AND STORAGE

Ensure that all containers are labelled. Avoid contact with metal. Avoid skin and eye contact. Wear appropriate protective clothing. Store in dry rubber-lined, plastic or FRP vessels. Keep storage temperature between 10 and 30 °C. Store away from incompatible materials such as alkalis. Keep containers tightly closed when not in use and when empty. Product should be used within one (1) year.

### EXPOSURE CONTROLS/PERSONAL PROTECTION

Due to its low volatility and toxicity, the hazard potential associated with this material is relatively low.

**Ventilation:** Local ventilation, and there should be enough local ventilation to keep the TLV below the ACGIH limits.





## Ferrous Chloride MSDS

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### 6. (Cont'd)

**Gloves:** Impervious gloves (neoprene recommended).

**Eyes:** Chemical goggles or face shield.

**Respirator:** Use an approved respirator with acid mist cartridges, if necessary.

**Clothing:** Rubber boots, pants, and coat depending on degree of exposure.

When cleaning, decontaminating or performing maintenance on tanks, containers, piping systems and accessories, and in any other situations where airborne contaminants and/or dust could be generated, use protective equipment to protect against ingestion or inhalation. HEPA or air supplied respirator, full Tyvek coveralls with head cover, gloves and boots or chemical suits, and boots are suggested.

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### 7. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Light Green
<b>Odor:</b>	Slight acidic odor
<b>Form:</b>	Liquid
<b>pH Solution:</b>	<1
<b>Vapor Pressure (mm Hg):</b>	N/A
<b>Boiling Point:</b>	105 °C - 110 °C (220 - 230 °F)
<b>Specific Gravity (20°C):</b>	1.18 – 1.32
<b>Solubility (water):</b>	Soluble
<b>Vapor Density (Air=1):</b>	N/A
<b>Percent Volatile by Vol.:</b>	N/A
<b>Freezing Point:</b>	Consult your Eaglebrook representative



## Ferrous Chloride MSDS

(Material Safety Data Sheet)

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### 8. STABILITY AND REACTIVITY

**Stability:** Stable

**Hazardous Decomposition:** Produces hydrochloric acid.

**Conditions to Avoid:** Contact with mineral acids, excessive heat and bases/alkalies

**Incompatible Materials:** Metals, metal alloys, aluminum, stainless steel, steel carbon, brasses and nylon.

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### 9. TOXICOLOGICAL INFORMATION

*\*Not available*

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### 10. ECOLOGICAL INFORMATION

*\*Not available*

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### 11. TRANSPORT INFORMATION

**Shipping Name:** Ferrous Chloride Solution

**Hazardous Class:** 8

**UN Number:** UN 1760      **Packing Group:** II

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### 12. DISPOSAL CONSIDERATIONS

This material exhibits the RCRA characteristic of corrosivity and any disposal must comply with hazardous waste disposal requirements. Any residues and/or rinse waters from cleaning of tanks, containers, piping systems and accessories may be a hazardous characteristic waste and must be properly disposed of in accordance with federal, state, provincial and local laws.



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### 13. REGULATORY INFORMATION

**CERCLA RQ:** 350 - 500 liquid pounds (depending on ferrous chloride concentration. Hydrochloric Acid is a reportable chemical under Section 313 of EPCRA (40 CFR 372).

**WHMIS:** Class E  
This product has been classified in accordance with the hazard criteria of the CPR, and this MSDS contains all the information required by the CPR.

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### 14. OTHER INFORMATION

**NFPA:** HEALTH: 2  
FLAMMABILITY: 0  
REACTIVITY: 1

#### SARA TITLE III HAZARD CATEGORIES AND LISTS:

ACUTE (IMMEDIATE) HEALTH: Yes	
CHRONIC (DELAYED) HEALTH: No	FIRE: No
REACTIVITY: No	TOXIC CHEMICAL: No
EXTREMELY HAZARDOUS SUBSTANCE: No	
(40 CFR 355, SARA Title III Section 302)	
CERCLA HAZARDOUS SUBSTANCE: No	(40 CFR 302.4)
SUDDEN RELEASE OF PRESSURE: No	
(40 CFR 372.65, SARA Title III Section 313)	

**TSCA:** This substance or all ingredients of this product are listed on the Chemical Substances Inventory of the TSCA. Does not require reporting.

**Risk Phrases:** R22 – Harmful if swallowed

**Safety Phrases:** S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37/39 – Wear suitable protective clothing, gloves and eye protection.